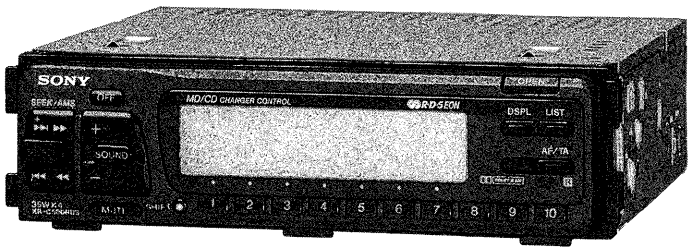
XR-C500RDS

SERVICE MANUAL

AEP Model
UK Model



Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MG-52B-135

SPECIFICATIONS

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 20,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	61 dB
TYPE I	64 dB	58 dB

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	
	0.5 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 281 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 50 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	35 W × 4 (at 4 ohms)

General

Outputs	Line outputs (2) Power aerial relay control lead Power amplifier control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 177 mm (w/h/d)
Mounting dimension	Approx. 182 × 53 × 162 mm (w/h/d)
Mass	Approx. 1.3 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1) Rotary remote RM-X2S (1)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

FM/MW/LW CASSETTE CAR STEREO

SONY®

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Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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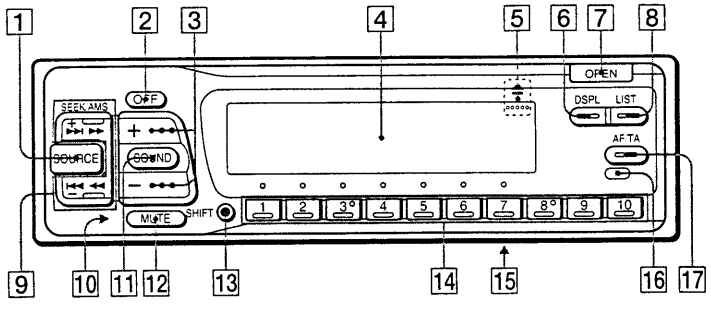
Location of controls



Refer to the pages for details.

1 SOURCE (source select) button 6 , 7, 8, 10, 14, 16

2 OFF button 4, 6

3 ⊕ ⊖ (volume/bass/treble/balance/fader control) button 13, 15

4 Display window

5 ⏏ (eject) button (located on the front side of the unit hidden by the front panel) 5

6 DSPL button (display mode change) button 6, 8, 14, 16

7 OPEN button 4, 6, 18

8 LIST button
Disc Memo 15
List-up 16
RDS Programme 11

9 SEEK/AMS (seek/Automatic Music Sensor/manual search) button 6, 7, 8, 14, 16

10 Reset button (located on the front side of the unit hidden by the front panel) 4

11 SOUND button 13

12 MUTE button 13

13 SHIFT button
BTM 7
SET UP 4, 11, 12, 14
PLAY MODE 7, 9, 14, 15, 16

14 During radio reception:
Preset number buttons 7, 8
During CD/MD playback:
Direct disc selection button 14

15 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT switch" in the Installation/Connections manual.

16 Receptor for wireless remote

17 AF/TA button 9, 10

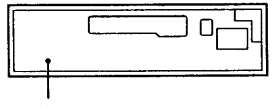
EN EN

Additional Information

Getting started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Press the reset button with a pointed object, such as a ballpoint pen.



Reset button

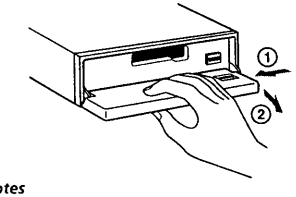
Note
Pressing the reset button will erase all the memory functions except for the preset stations.

Detaching the front panel

You can detach the front panel of this unit to prevent the unit from being stolen.

1 Press (OFF).

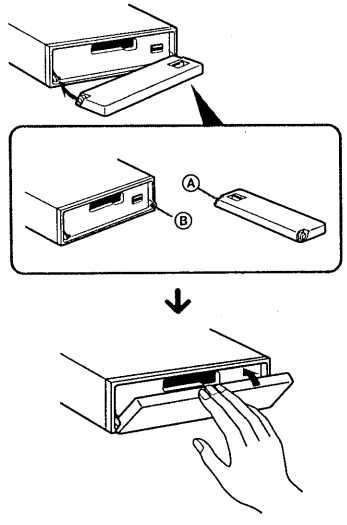
2 Press (OPEN) to open the front panel , then slide the front panel to the left side, and pull out the right side of the front panel.



Notes
- *Do not put anything on the inner surface of the front panel.*
- *Be sure not to drop the panel when detaching it from the unit.*
- *If you detach the panel while the unit is still on, the power will turn off automatically to prevent the speakers from being damaged.*
- *When you carry the front panel with you, put it in the supplied front panel case.*

Attaching the front panel

Place the hole Ⓐ in the front panel onto the spindle Ⓑ on the unit as illustrated, then push the left side in.



Notes
- *Be sure not to attach the front panel upside down.*
- *Do not press the front panel hard against the unit when attaching it. Press it lightly against the unit.*
- *Do not press hard or put excessive pressure on the display windows of the front panel.*
- *Do not expose the front panel to direct sunlight, heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight where there may be a considerable rise in temperature.*

Caution alarm

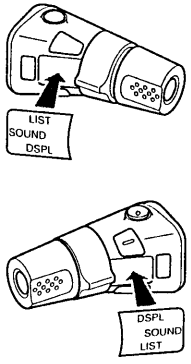
If you turn the ignition key switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch is set to the Ⓐ position).

SECTION 1
GENERAL

This section is extracted from instruction manual.

Preparing the rotary remote

When you mount the rotary remote, attach the label in the illustration below.

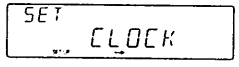


Setting the clock

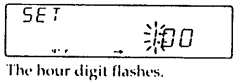
The clock has a 24-hour digital indication.

Example: Set the clock to 10:08

1 Press (SHIFT), then press (2) (SET UP).



❶ Press (4) (→).

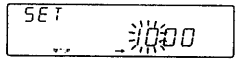


The hour digit flashes.

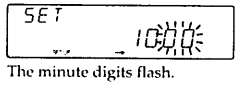
❷ Set the hour.

to go forward

to go back



❸ Press (4) (→).

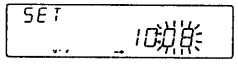


The minute digits flash.

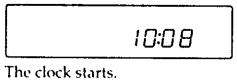
❹ Set the minute.

to go forward

to go back



2 Press (SHIFT).



The clock starts.

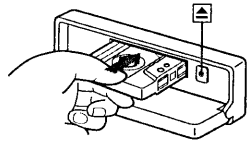
Note

If the POWER SELECT switch on the bottom of the unit is set to the ❽ position, turn the power on first, then set the clock.

Cassette Player

Listening to the tape

1 Press (OPEN) and insert the cassette.

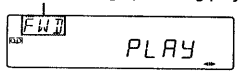


Playback starts automatically.

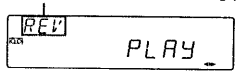
2 Close the front panel.

If the cassette is already inserted, press (SOURCE) until "FWD" or "REV" appears to start playback.

The side facing up is being played.



The side facing down is being played.



Tips

- *To change the tape transport direction, press (7) (◀I▶).*
- *"METAL" appears in the display when you insert the metal or CrO_2 tape (Auto Metal function).*

To	Press
Stop playback	(OFF)
Eject the cassette	(OPEN) then ⏏

Fast-winding the tape

During playback, press either side of (SEEK/AMS) for one second.

Fast-forward

Rewind

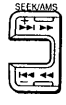
To start playback during fast-forwarding or rewinding, press (7) (◀I▶).

Locating the beginning of the tracks

— Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, press either side of (SEEK/AMS) momentarily.



To locate the succeeding tracks

To locate the previous tracks

Note

The AMS function may not work when :

- *the blanks between tracks are shorter than four seconds.*
- *there are noises.*
- *there are long sections of low volume or quiet sections.*

Changing the displayed items

Each time you press (DSPL), the item changes as follows:

Tape playback → Clock → Frequency*

** While the ATA function is activated.*

Playing the tape in various modes

You can play the tape in various modes:
- INTRO (Intro Scan) lets you play the first 10 seconds of all the tracks.
- REPEAT (Repeat Play) repeats the current track.
- NR(Dolby NR) lets you select the Dolby* NR B system.
- ATA (Automatic Tuner Activation) turns on the tuner automatically while fast-winding the tape.
- BL.SKP (Blank Skip) skips blanks longer than eight seconds.

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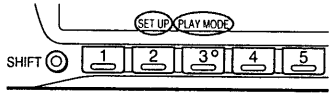
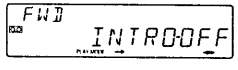
1 **Press (SHIFT).**
Every time you press (SHIFT), only the items you can select light up.

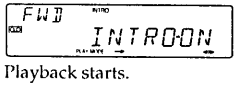


2 **Press (3) (PLAY MODE), repeatedly until the desired play mode appears.**
Each time you press (3), the item changes as follows:

INTRO → REPEAT → NR → ATA → BL. SKP



3 **Press (4) (→) to select "ON."**



Playback starts.

To go back to the normal playback mode, select "OFF" in step 3 above.

Radio

Memorising stations automatically

— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorizes them in the order of their frequencies. You can store up to 10 stations on each band (FM 1, FM 2, MW and LW).

Caution
When tuning in the station while driving, use Best Tuning Memory to prevent accidents.

1 **Press (SOURCE) repeatedly to select the desired band (FM 1, FM 2, MW and LW).**

2 **Press (SHIFT), then press (6) (BTM).**
The unit stores stations in the order of their frequencies on the number buttons.
A beep sounds and the setting is stored.

Notes
- *The unit does not store stations with weak signals. If only a few stations are received, some number buttons remain empty.*
- *When a preset number is indicated in the display, the unit starts storing stations from the one currently displayed.*

Memorising only the desired stations

You can store up to 10 stations on each band (20 for FM 1 and FM 2, 10 for MW or LW) in the order of your choice.

1 **Press (SOURCE) repeatedly to select the desired band.**

2 **Press either side of (SEEK/AMS) to tune in the station that you want to store on the number button.**

3 **Keep the desired number button (1) to (10) pressed for two seconds until you hear a beep tone.**

The number button indication appears in the display.

Note
If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorised stations

1 **Press (SOURCE) repeatedly to select the desired band.**

2 **Press the number button (1) to (10) momentarily, where the desired station is stored.**

If you cannot tune in a preset station

Press either side of (SEEK/AMS) momentarily to search for the station (automatic tuning).
Scanning stops when the unit receives a station. Press either side of (SEEK/AMS) repeatedly until the desired station is received.

Note
If the automatic tuning stops too frequently, press (SHIFT), then press (3) (PLAY MODE) repeatedly until "LOCAL" (local seek mode) is displayed. Then press (4) (→) to select "ON."
Only the stations with relatively strong signals will be tuned in.

Tip
If you know the frequency of the station you want to listen to, press and hold either side of (SEEK/AMS) for two second, until the desired frequency appears (manual tuning).

If FM stereo reception is poor

— Monaural Mode

1 **Press (SHIFT), then press (3) (PLAY MODE) repeatedly until "MONO" appears.**

2 **Press (4) (→) repeatedly until "MONO-ON" appears.**
The sound improves, but becomes monaural ("STEREO" disappears).

To go back to the normal mode, select "MONO-OFF" in step 2 above.

Changing the displayed items

Each time you press (DSPL), the item changes as follows:

Frequency ⟷ Clock

RDS

Overview of the RDS function

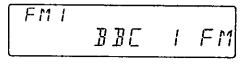
Radio Data System (RDS) is a broadcasting service that allows FM stations to send additional digital information along with the regular radio programme signal. Your car stereo offers you a variety of services. Here are just a few: re-tuning the same programme automatically, listening to traffic announcements and locating a station by programme type.

Notes
- *Depending on the country or region, not all of the RDS functions are available.*
- *RDS may not work properly if the signal strength is weak or if the station you are tuned in is not transmitting RDS data.*

Displaying the station name

The name of the station currently received lights up in the display.

Select an FM station.
When you tune in an FM station that transmits RDS data, the station name lights up on the display.



Note
The "" indication means that an RDS station is being received.*

Changing the displayed items

Each time you press (DSPL), the item changes as follows:

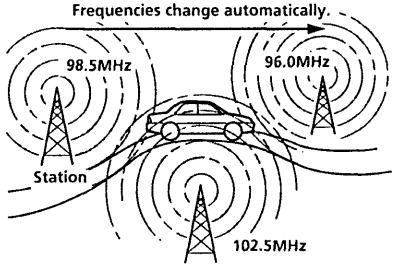
Frequency → Clock → Station name

Note
"NO NAME" appears if the station received does not transmit RDS data.

Re-tuning the same programme automatically

— Alternative Frequencies (AF)

The Alternative Frequencies (AF) function automatically selects and re-tunes the station with the strongest signal in a network. By using this function, you can continuously listen to the same programme during a long-distance drive without having to re-tune the station manually.



1 Select an FM station.

2 Press (AF/TA) repeatedly until "AF-ON" appears.
The unit starts searching for an alternative station with a stronger signal in the same network.

Note
When there is no alternative station in the area and you don't need to search for an alternative station, turn the AF function off by pressing (AF/TA) repeatedly until "AF.TA-OFF" appears.

Changing the displayed items

Each time you press (AF/TA), the items change as follows:

AF-ON → TA-ON → AF.TA-ON* → AF.TA-OFF →

** Select this to turn on both the AF and TA functions.*

Notes
- *"NO AF" and the station name flash alternately, if the unit cannot find an alternative station in the network.*
- *If the station service name starts flashing after you've made the preset selection, it means that no alternative frequency is available, and the unit cannot receive the PI (Programme Identification) data of the memorised station. Press (SEEK/AMS) while the station service name is flashing (for about eight seconds) so the unit starts searching for a station with the same PI data, but on another frequency ("PI SEEK" appears and no sound is heard). If the unit still cannot find an alternative station, "NO PI" appears and the unit goes back to the original preset station.*

Listening to a regional programme

The "REG-ON" (regional on) function of this unit lets you stay tuned to a regional programme without being switched to another regional station. (Note that you must turn the AF function on.) The unit is factory preset to "REG-ON", but if you want to turn off the function, do the following.

Press (SHIFT), then press (3) (PLAY MODE) repeatedly until "REG-OFF" appears.
Note that selecting "REG-OFF" might cause the unit to switch to another regional station within the same network.

Note
This function does not work in the United Kingdom and in some other areas.

Local link function (United Kingdom only)

The Local Link function lets you select other local stations in the area, even though they are not stored on your preset number buttons.

1 Press a preset number button that has a local station stored on it.

2 Within five seconds, press the preset number button of the local station again.

3 Repeat this procedure until the desired local station is received.

Listening to traffic announcements

The Traffic Announcement (TA) and Traffic Programme (TP) data let you automatically tune in an FM station that is broadcasting traffic announcements even though you are listening to other programme sources.

Press (AF/TA) repeatedly until "TA-ON" or "AF.TA-ON" appears.
The unit starts searching for traffic information stations. "TP" lights up in the display when the unit finds a station broadcasting traffic announcements. When the traffic announcement starts, "TA" flashes. The flashing stops when the traffic announcement is over.

Tip
If the traffic announcement starts while you are listening to another programme source, the unit automatically switches to the announcement and goes back to the original source when the announcement is over.

Notes
- *"NO TP" flashes for five seconds if the received station doesn't broadcast traffic announcements. Then, the unit starts searching for a station that broadcast traffic announcements.*
- *When "EON" appears with "TP" in the display, the current station makes use of broadcast traffic announcement of other stations in the same network.*

To cancel the current traffic announcement

Press (AF/TA) momentarily.
To cancel all traffic announcements, turn off the function by pressing (AF/TA) until "AF.TA-OFF" appears.

Presetting the volume of traffic announcements

You can preset the volume level of the traffic announcements beforehand so you won't miss the announcement. When a traffic announcement starts, the volume will be automatically adjusted to the preset level.

1 Select the desired volume level.

2 Press (AF/TA) for two seconds.
A beep sounds and the setting is stored.

Receiving emergency announcements

If an emergency announcement comes in while you are listening to the radio, the programme will be automatically switched to the announcement. If you are listening to a source other than the radio, the emergency announcements will be heard if you set AF or TA to on. The unit will then automatically switch to these announcements no matter what you are listening to at the time.

Presetting the RDS stations with the AF and TA data

When you preset the RDS stations, the unit stores each station's data as well as its frequency, so you don't have to turn on the AF or TA function every time you tune in the preset station. You can select a different setting (AF, TA, or both) for individual preset station, or the same setting for all preset stations.

Presetting the same setting for all preset stations

1 Press (SOURCE) to select an FM band.

2 Press (AF/TA) repeatedly to select either "AF-ON", "TA-ON" or "AF.TA-ON" (for both AF and TA functions).
Note that selecting "AF.TA-OFF" stores not only RDS stations, but also non-RDS stations.

3 Press (SHIFT) then, press (6) (BTM).

Presetting different settings for each preset station

1 Select an FM band, and tune in the desired station.

2 Press (AF/TA) repeatedly to select either "AF-ON", "TA-ON" or "AF.TA-ON" (for both AF and TA functions).

3 Press the desired preset number button for two seconds until a beep sounds.
Repeat from step 1 for presetting other stations.

Tip
If you want to change the preset AF and/or TA setting after you tuned in the preset station, you can do so by turning on/off the AF or TA function.

Locating a station by programme type

You can locate the station you want by selecting one of the programme types shown below.

Note

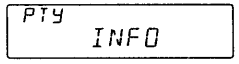
If the countries or regions where EON data is not transmitted, you can use this function only for the stations you have tuned in once.

Programme types	Display
News	NEWS
Current Affairs	AFFAIRS
Information	INFO
Sports	SPORT
Education	EDUCATE
Drama	DRAMA
Culture	CULTURE
Science	SCIENCE
Varied	VARIED
Popular Music	POP M
Rock Music	ROCK M
Middle of the Road Music	M.O.R. M
Light Classical	LIGHT M
Classical	CLASSICS
Other Music Type	OTHER M
Not specified	NONE

Note

You can not use this function in some countries where no PTY (Programme Type selection) data is available.

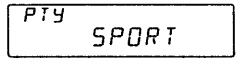
1 Press (LIST) during FM reception until "PTY" appears.



The current programme type name appears if the station is transmitting the PTY data. "- - - - -" appears if the received station is not an RDS station, or if the RDS data has not been received.

2 Press (LIST) repeatedly until the desired programme type appears.

The programme types appear in the order shown in the above table. Note that you cannot select "NONE" (Not specified) for searching.



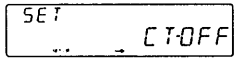
3 Press either side of (SEEK/AMS).

The unit starts searching for a station broadcasting the selected programme type. When the unit finds the programme, the programme type appears again for five seconds.
"NO" and the programme type appear alternately for five seconds if the unit cannot find the programme type. It then returns to the previous station.

Setting the clock automatically

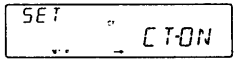
The CT (Clock Time) data from the RDS transmission sets the clock automatically.

1 Press (SHIFT), then press (2) (SET UP) repeatedly until "CT" appears.



2 Press (4) (→) repeatedly until "CT-ON" appears.

The clock is set.



3 Press (SHIFT) to return to the normal display.

To cancel the CT function

Select "CT-OFF" in step 2 above.

Notes

- *The CT function may not work even though an RDS station is being received.*
- *There might be a difference between the time set by the CT function and the actual time.*

EN EN

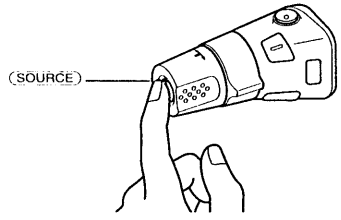
RDS

Other Functions

Using the rotary remote

The rotary remote works by pressing buttons and/or rotating controls.
You can control the optional CD or MD changer with the rotary remote.

By pressing the button (the SOURCE button)



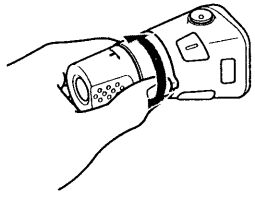
Each time you press (SOURCE), the source changes as follows:

FM1 → FM2 → MW → LW → CD1 → CD2 → MD1 → MD2

Tip

When the POWER SELECT switch is set to position B, you can turn on this unit by pressing (SOURCE) on the rotary remote.

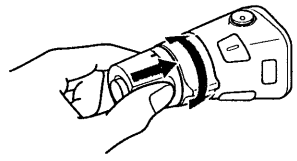
By rotating the control (the SEEK/AMS control)



Rotate the control momentarily and release it to:

- Locate a specific track on a tape or a disc. Rotate and hold the control to locate the specific point in a track, then release it to start playback.
- Tune in the stations automatically. Rotate and hold the control to tune in the specific station.

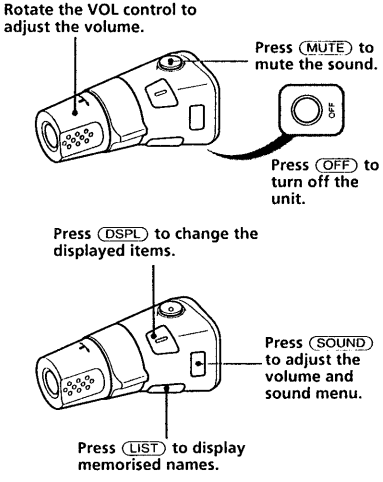
By rotating the control while pushing (the PRESET/DISC control)



Rotate the control while pushing it to:

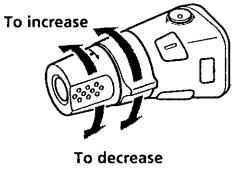
- Receive the stations memorised on the preset buttons.
- Change the disc.

Other operations

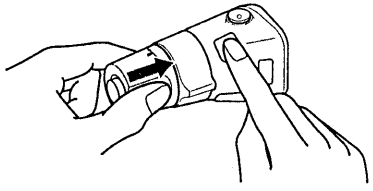

Rotate the VOL control to adjust the volume.
Press (MUTE) to mute the sound.
OFF
Press (OFF) to turn off the unit.
Press (DSPL) to change the displayed items.
Press (SOUND) to adjust the volume and sound menu.
Press (LIST) to display memorised names.

Changing the operative direction

The operative direction of controls is factory preset as in the illustration below.



If you need to mount the rotary remote on the right of the steering column, you can reverse the operative direction of the controls.



Press (DSPL) two seconds while pushing the VOL control.

Tip
You can control the operative direction of controls with the unit.

Adjusting the sound characteristics

You can adjust the bass, treble, balance and fader.
Each source can store the bass and treble level respectively.

1 Select the item you want to adjust by pressing (SOUND) repeatedly.

VOL (volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader)

2 Adjust the selected item by pressing + or −.
Adjust within three seconds after selecting. (After three seconds, the buttons work as volume control buttons.)

Muting the sound

Press (MUTE).
"MUTE-ON" flashes.

To restore the previous volume level, press (MUTE) again.

Tip
The unit decreases the volume automatically when a telephone call comes in (Telephone-mute function).

Changing the sound and display settings

You can set:
- AMBER/GREEN to change the illumination colour to amber or green.
- BEEP to turn on or off the beeps.
- DIM (dimmer) to change the brightness of the display.
- D. INFO (dual information) to display the clock and the play mode at the same time (ON) or to display the information alternately (OFF).
- LOUD (Loudness) to enjoy bass and treble even at low volume. Bass and treble will be reinforced.
- RM (Rotary Remote) to change the operative direction of the controls of the rotary remote.
  — Select "NORM" to use the rotary remote as the factory preset position.
  — Select "REV" when you mount the rotary remote on the right of the steering column.

1 Press (SHIFT), then press (2) (SET UP).

2 Press (2) (SET UP) repeatedly until the desired setting mode appears.

Each time you press (2) (SET UP), the item changes as follows:
CLOCK → AMBER/GREEN → BEEP → DIM → CT → D. INFO → LOUD → RM

3 Press (4) (→) to select the desired setting (for example: ON or OFF).

4 Press (SHIFT).
When the mode setting is complete, the normal playback mode appears.

With Optional Equipment

CD/MD Changer

You can control up to 10 CD changers and MD changers with this unit.

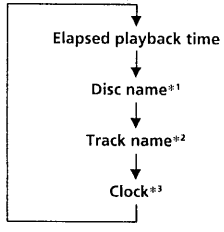
Playing a CD or MD

Press (SOURCE) until the desired changer appears.
CD/MD playback starts.

When a CD or MD changer is connected, all the tracks play from the beginning.

Changing the displayed items

Each time you press (DSPL) during CD/MD playback, the item changes as follows:



*1 *If there is no prerecorded name for an CD or MD, "NO NAME" appears in the display.*
*2 *If the track name is not prerecorded, "NO NAME" appears in the display.*
*3 *If the dual information is on, clock does not appear in the display.*

Tip
If the name of the MD is too long, you can scroll it across the display by pressing (SHIFT), then (1) (←).

Automatically scrolling a disc name — Auto Scroll

The Auto Scroll function automatically scrolls the disc or track name of the MD when you press (DSPL) and the name length exceeds 8 characters.

1 Press (SHIFT), then press (2) (SET UP) repeatedly until "A. SCRL." appears.

2 Press (4) (→) to select "A. SCRL-ON."

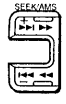
To cancel Auto Scroll, select "A. SCRL-OFF" in step 2 above.

Displaying the recording date of the currently selected MD

Press (DSPL) for two seconds during MD playback.
The recording date of the track is displayed for about three seconds.

Locating a specific track — Automatic Music Sensor (AMS)

During playback, press either side of (SEEK/AMS) once for each track you want to skip.

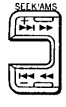


To locate succeeding tracks

To locate previous tracks

Locating a specific point in a track — Manual Search

During playback, press and hold either side of (SEEK/AMS). Release the button when you have found the desired point.



To search forward

To search backward

Locating a disc by disc number — Direct Disc Selection

Press the number button that corresponds with the desired disc number.
The desired disc in the currently selected changer begins playback.

Scanning the tracks — Intro Scan

You can play the first 10 seconds of all the tracks on the currently selected disc.

1 During playback, press (SHIFT), then press (3) (PLAY MODE) repeatedly until "INTRO" appears.

2 Press (4) (→) repeatedly until "INTRO-ON."
Intro Scan starts.

To go back to the normal playback mode, select "INTRO-OFF" in step 2 above.

Playing tracks repeatedly

— Repeat Play

You can select:
- REP-1 to repeat a track.
- REP-2 to repeat a disc.
- REP-3 to repeat all the discs in the current changer.

1 During playback, press SHIFT, then press 3 (PLAY MODE) repeatedly until "REP" appears.

2 Press 4 (→) repeatedly until the desired setting appears.

→ REP-1 → REP-2 → REP-3 → REP-OFF →

Repeat play starts.

To go back to the normal playback mode, select "REP-OFF" in step 2 above.

Playing tracks in random order — Shuffle Play

You can select:
- SHUF-1 to play the tracks on the current disc in a random order.
- SHUF-2 to play the tracks in the current changer in a random order.
- SHUF-3 to play all the tracks in a random order.

1 During playback, press SHIFT, then press 3 (PLAY MODE) repeatedly until "SHUF" appears.

2 Press 4 (→) repeatedly until the desired setting appears.

→ SHUF-1 → SHUF-2 → SHUF-3 →
SHUF-OFF ←

Shuffle play starts.

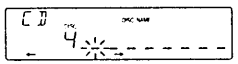
To go back to the normal playback mode, select "SHUF-OFF" in step 2 above.

Labeling a CD

— Disc Memo
(CD changer with custom file function)

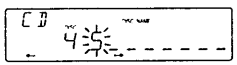
You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate a disc by name and select the specific tracks for playback (page 16).

1 Play the CD and press LIST for two seconds.



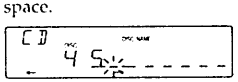
2 Enter the characters.

❶ Press + to select the desired characters.
(A → B → C → ··· Z → 0 → 1 → 2 → ··· 9 → + → − → * → / → \ → > → < → . → _)



If you press −, the characters appear in the reverse order.
If you want to put a blank space between characters, select "_" (underbar).

❷ Press 4 (→) after locating the desired character.
The flashing cursor moves to the next space.



If you press 1 (←), the flashing cursor moves to the left.

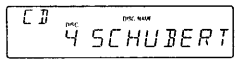
❸ Repeat steps ❶ and ❷ to enter the entire name.

3 To return to the normal CD playback mode, press LIST for two seconds.

Tip
To erase/correct a name, enter "_" (under-bar) for each character.

Displaying the disc memo

Press DSPL during CD playback.



Each time you press DSPL during CD playback, the item changes as follows:

→ Elapsed playback time → Disc name →
Clock ←

Erasing the disc memo

1 Press SOURCE to select the CD changer.

2 Press LIST for two seconds.

3 Press DSPL for two seconds.

4 Press + or − to select the name that you want to erase.

5 Press 5 (ENTER) for two seconds.
The name is erased.
Repeat steps 3 and 4 if you want to erase other names.

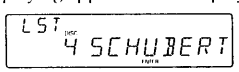
6 Press LIST for two seconds.
The unit returns to the normal CD playback mode.

Locating a disc by name

— List-up (CD changer with custom file function or MD changer)

You can use this function for the discs that have been assigned a custom name. For more information on disc names, refer to "labeling a CD" (page 15).

1 Press LIST momentarily.
The name assigned to the disc currently playing appears in the display.



2 Press LIST repeatedly until you find the desired disc.

3 Press 5 (ENTER) to play back the disc.

Notes
- *Once a disc name has been displayed for five seconds, the display goes back to its normal playback mode. To turn off the display, press DSPL.*
- *The track names are not displayed during MD playback.*
- *If there are no discs in the magazine, "NO DISC" appears in the display.*
- *If a disc has not been assigned a custom file, "********" appears in the display.*
- *If the disc information has not been read by the unit, "NOT READ" appears in the display. To load the disc, first press the number button, then choose the disc that has not been loaded.*
- *The information is appears only in upper cases. There are also some letters which cannot be displayed (during MD playback).*

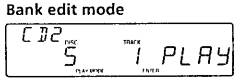
Selecting the specific tracks for playback

— Bank
(CD changer with custom file function)

If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

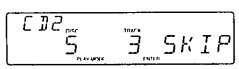
1 Start playing the disc and press SHIFT. Then press 3 (PLAY MODE) for two seconds.

Bank edit mode



Note
If you have not labeled the disc, the bank edit mode does not appear.

2 Press either side of SEEK/AMS to select the track number you want to skip and press 5 (ENTER).



The indication changes from "PLAY" to "SKIP." If you want to return to "PLAY," press 5 (ENTER) again.

3 Repeat step 2 to set the "PLAY" or "SKIP" mode on all the tracks.

4 Press 3 (PLAY MODE) for two seconds.

Notes
- *You can set the "PLAY" and "SKIP" mode on up to 24 tracks.*
- *You cannot set the "SKIP" mode on all the tracks.*

Playing the specific tracks only

You can select:
- BANK-ON to play the tracks with the "PLAY" setting.
- BANK-INV (inverse) to play the tracks with the "SKIP" setting.

1 During playback, press (SHIFT), then press (3) (PLAY MODE) repeatedly until "BANK" appears.

2 Press (4) (→) repeatedly until the desired setting appears.

→ BANK-ON → BANK-INV → BANK-OFF

Playback starts from the track following the current one.

To go back to the normal playing mode, select "BANK-OFF" in step 2 above.

Additional Information

Precautions

- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before operating it.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a two-speaker system, set the fader control to the centre position.
- If your car is equipped with a power aerial, note that it will extend automatically while the unit is operating.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Notes on cassette deck tape heads

- Long use of cassette tapes contaminates the tape head causing poor sound quality or complete sound dropout. Therefore, we recommend cleaning the tape head once a month or so with the separately available Sony Cassette Cleaning Set. If the sound does not improve after using a cleaning cassette, please consult your nearest Sony dealer.
- In case of old or inferior cassette tapes, the tape head gets contaminated much more quickly. Depending on the tape, one or two playbacks may cause poor sound.

Cassette care

- Do not touch the tape surface of a cassette, as any dirt or dust will contaminate the heads.
- Keep cassettes away from equipment with built-in magnets such as speakers and amplifiers, as erasure or distortion on the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures or moisture.
- When the tape is played back for a long period, the cassette shell may become warm because of the built-in power amplifier. However, this is not a sign of a malfunction.

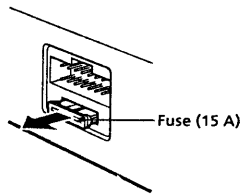
Cassettes longer than 90 minutes

The use of cassettes longer than 90 minutes is not recommended except for long continuous play. The tapes used for these cassettes are very thin and tend to be stretched easily. Frequent playing and stopping of these tapes may cause them to be pulled into the cassette deck mechanism.

Maintenance

Fuse replacement

When replacing the fuse, be sure to use one that maches the amperage described on the fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

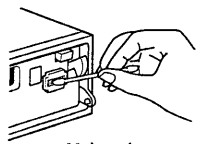


Warning

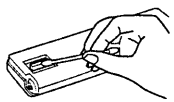
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. To prevent this, open the front panel by pressing (OPEN), then detach it and clean the connectors with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.

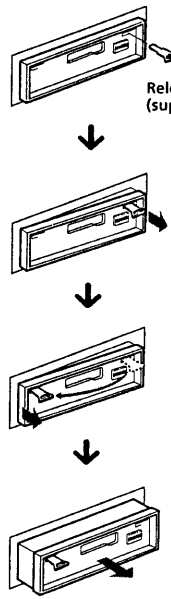


Main unit



Back of the front panel

Dismounting the unit



Connections

Caution

- This unit is designed for negative earth 12 V DC operation only.
- Connect the power connecting cord ⑦ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth wires to a common earth point.**

If your car has no accessory position on the ignition key switch — POWER SELECT switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear **if your car has no accessory position on the ignition key switch.** To avoid this battery wear, **set the POWER SELECT switch located on the bottom of the unit to the ❽ position, then press the reset button.** The illumination is reset to stay off while the unit is not being played.

Note

The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ❽ position.

Connexions

Précautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Branchez le cordon d'alimentation ⑦ sur l'appareil et les haut-parleurs avant de le brancher sur le connecteur d'alimentation auxiliaire.
- **Rassembler tous les fils de terre en un point de masse commun.**

Si l'appareil est utilisé dans une voiture dont la clé de contact n'a pas de position accessoires — Interrupteur POWER SELECT

L'éclairage de la façade est réglé en usine de manière à s'allumer même quand l'appareil ne fonctionne pas. Cependant, ce réglage risque d'épuiser la batterie **si l'appareil est utilisé dans une voiture dont la clé de contact ne possède pas de position accessoires.** Pour éviter d'épuiser la batterie, régler l'interrupteur **POWER SELECT sur le socle de l'appareil sur la position ❽, puis appuyer sur la touche de réinitialisation.** L'éclairage est réglé pour rester éteint quand l'appareil n'est pas utilisé.

Remarque

Quand l'interrupteur POWER SELECT est réglé sur la position ❽, l'avertisseur du panneau avant ne fonctionne pas.

Anschluß

Vorsicht

- Dieses Gerät ist ausschließlich für eine negativ geerdete 12-V-Gleichstromversorgung bestimmt.
- Verbinden Sie das Netzverbindungskabel ⑦ mit dem Gerät und den Lautsprechern, bevor Sie es mit dem Hilfsstromanschluß verbinden.
- **Schließen Sie alle Erdungskabel an einen gemeinsamen Massepunkt an.**

Wenn das Zündschloß Ihres Wagens keine Position I bzw. ACC besitzt — POWER SELECT-Schalter

Das Gerät ist werkseitig so voreingestellt, daß das Bedienfeld auch dann beleuchtet ist, wenn das Gerät nicht betrieben wird. Besitzt das Zündschloß Ihres Fahrzeugs **keine Position I bzw. ACC, so ist die Beleuchtung ständig eingeschaltet** und entzieht der Batterie Strom. Stellen Sie in einem solchen Fall **den POWER SELECT-Schalter an der Unterseite des Geräts auf Position ❽, und drücken Sie dann die Rücksetztaste.** Bei ausgeschaltetem Gerät ist das Bedienfeld dann nicht mehr beleuchtet.

Hinweis

Der Warnton für die Frontplatte ertönt nicht, wenn der POWER SELECT-Schalter auf Position ❽ gestellt ist.

Collegamenti

Attenzione

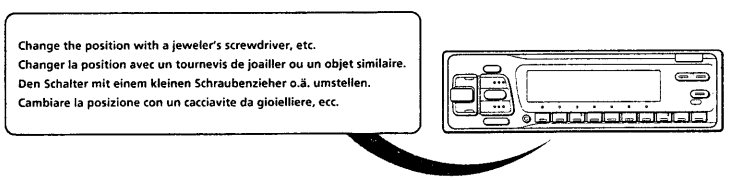
- Questo apparecchio è stato progettato per l'uso solo a 12 V CC con massa negativa.
- Collegare il cavo dell'alimentazione ⑦ all'apparecchio e bis ai diffusori prima di collegarlo al connettore di alimentazione ausiliario.
- **Portare tutti i cavi di massa a un punto di massa comune.**

Quando si usa l'apparecchio in un'auto priva di posizione accessoria per la chiavetta di accensione — Interruttore POWER SELECT

L'illuminazione del pannello anteriore è stata predisposta in fabbrica per l'attivazione anche quando non si usa l'apparecchio. Tuttavia questa regolazione può scaricare la batteria **se la chiavetta di accensione è priva della posizione accessoria.** Per evitare ciò, **regolare su ❽ l'interruttore POWER SELECT situato alla base dell'apparecchio e quindi premere il tasto di azzeramento.** L'illuminazione rimane così spenta finché l'apparecchio non viene utilizzato.

Nota

La suoneria di avvertimento del pannello anteriore non funziona quando l'interruttore POWER SELECT è in posizione ❽.


Change the position with a jeweler's screwdriver, etc.
Changer la position avec un tournevis de joaillier ou un objet similaire.
Den Schalter mit einem kleinen Schraubenzieher o.ä. umstellen.
Cambiare la posizione con un cacciavite da gioielliere, ecc.

When you change the position of the switch, be sure to press one of the reset buttons after the connections are completed.

Si vous changez la position de l'interrupteur, n'oubliez pas d'appuyer sur une des touches de réinitialisation après avoir terminé tous les raccordements.

Nach einer Umstellung des Schalters drücken Sie (bei vollständig angeschlossenem Gerät) die Rückstelltaste.

Quando si cambia la posizione dell'interruttore, assicurarsi di premere uno dei pulsanti di azzeramento dopo aver completato i collegamenti.

Reset button

When the installation and connections are over, be sure to press the reset button with a ballpoint pen etc.

Touche de réinitialisation

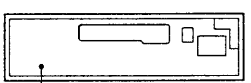
Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo bille ou un objet pointu.

Rücksetztaste

Nach der Installation und dem Anschluß muß die Rücksetztaste mit einem Kugelschreiber o.ä. gedrückt werden.

Pulsante di azzeramento

Dopo avere terminato l'installazione e i collegamenti, assicurarsi di premere il pulsante di azzeramento con la punta di una penna a sfera o altro oggetto simile.



Note on the control leads

- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the ATA (Automatic Tuner Activation), AF (Alternative Frequency) or the TA (Traffic Announcement) Function.*
- *A power aerial without relay box cannot be used with this unit.*

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord ⑦ may damage the aerial.

Remarque sur les fils de contrôle

- *Le fil de contrôle (bleu) de l'antenne électrique fournit un courant continu de +12 V quand le tuner est allumé ou quand la fonction ATA (Activation automatique du tuner), AF (Fréquences alternatives) ou TA (informations routières) est mise en service.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Connexion pour la conservation de la mémoire

Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur la connexion des haut-parleurs

- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Ne pas connecter d'enceintes acoustiques actives (avec amplificateurs intégrés) aux bornes d'enceinte de cet appareil, pour éviter d'endommager les enceintes. Veiller à raccorder des enceintes passives.*

Avertissement

Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni ⑦ risque d'endommager l'antenne.

Hinweis zu den Steuerleitungen

- *Die (blaue) Motorantennen-Steuerleitung liefert eine Gleichspannung von +12 V, wenn der Tuner eingeschaltet, die ATA-Funktion (Automatic Tuner Activation), die AF-Funktion (Alternative Frequency) oder die TA-Funktion (Traffic Announcement) aktiviert ist.*
- *Es kann nur eine Motorantenne mit Relaisbox angeschlossen werden.*

Stromversorgung des Speichers

Wenn das gelbe Stromversorgungskabel angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluß

- *Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.*
- *Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis, und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da diese sonst beschädigt werden können.*

Warnung

Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit Hilfe des mitgelieferten Netzverbindungskabels ⑦ die Antenne beschädigt werden.

Nota sui cavi di collegamento

- *Il cavo di controllo antenna automatica (blu) fornisce +12 V CC quando si accende il sintonizzatore o quando si attiva la funzione ATA (attivazione automatica sintonizzatore), la funzione AF (frequenza alternativa) o TA (notiziari sul traffico).*
- *Non è possibile usare un'antenna automatica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria

Quando il cavo di ingresso alimentazione giallo è collegato, il circuito della memoria viene alimentato in continuazione anche quando la chiavetta dell'accensione è sulla posizione spento.

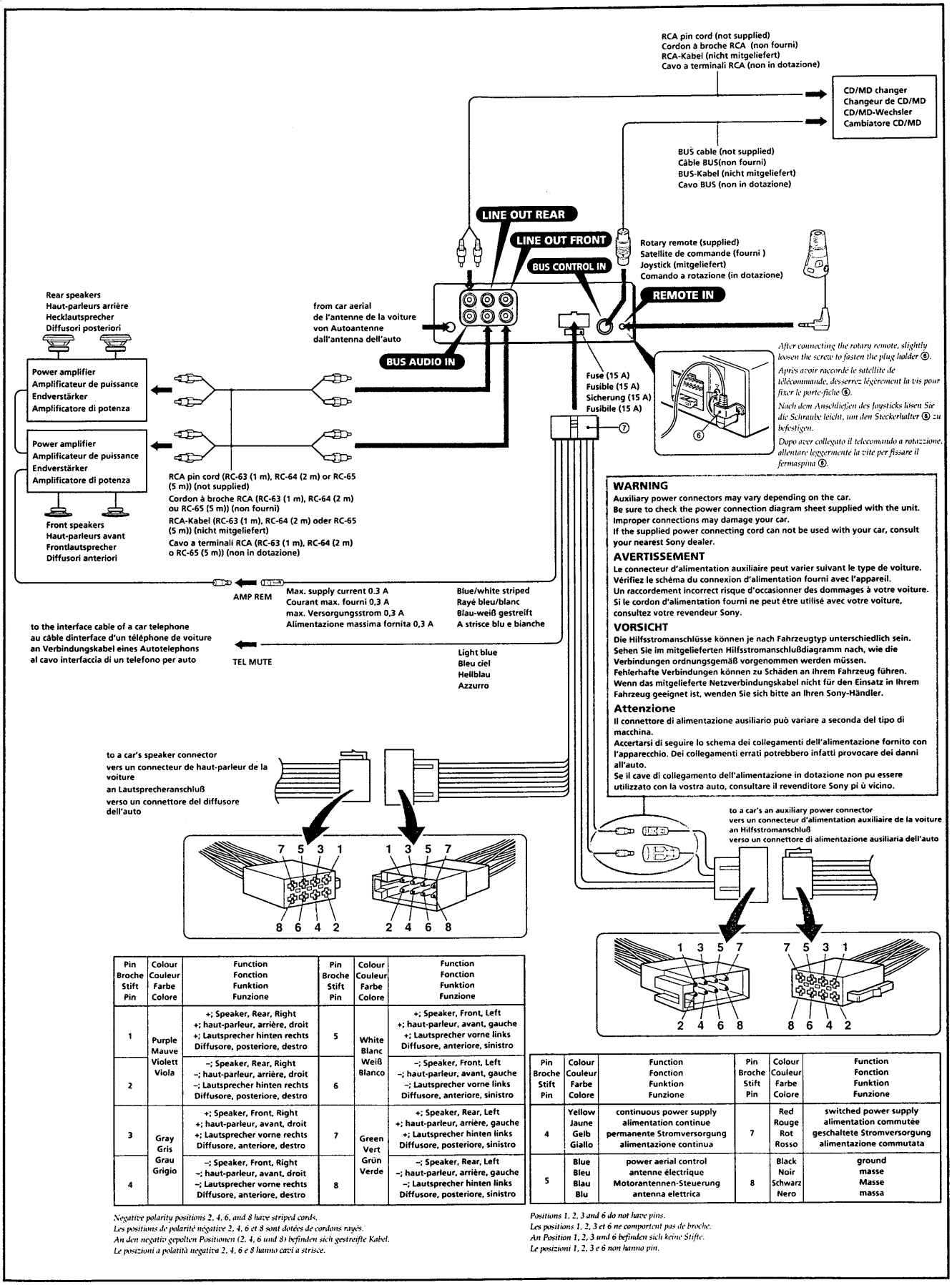
Note sul collegamento dei diffusori

- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, onde evitare di danneggiarli.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare i diffusori in parallelo.*
- *Non collegare alcun diffusore attivo (con amplificatore incorporato) ai terminali diffusori dell'apparecchio perché questo può danneggiare i diffusori attivi. Assicurarsi di collegare dei diffusori passivi.*

Avvertenza

Se l'antenna elettrica è priva di relè, potrebbe danneggiarsi se il collegamento dell'apparecchio viene effettuato utilizzando il cavo di alimentazione in dotazione ⑦.

Connections of example — Connexions de l'exemple — Anschlußbeispiel — Esempi di Collegamento


RCA pin cord (not supplied)
Cordon à broche RCA (non fourni)
RCA-Kabel (nicht mitgeliefert)
Cavo a terminali RCA (non in dotazione)
CD/MD changer
Changeur de CD/MD
CD/MD-Wechsler
Cambiatore CD/MD
BUS cable (not supplied)
Câble BUS(non fourni)
BUS-Kabel (nicht mitgeliefert)
Cavo BUS (non in dotazione)
LINE OUT REAR
LINE OUT FRONT
BUS CONTROL IN
REMOTE IN
BUS AUDIO IN
Rotary remote (supplied)
Satellite de commande (fourni)
Joystick (mitgeliefert)
Comando a rotazione (in dotazione)
Rear speakers
Haut-parleurs arrière
Hecklautsprecher
Diffusori posteriori
from car aerial
de l'antenne de la voiture
von Autoantenne
dall'antenna dell'auto
Power amplifier
Amplificateur de puissance
Endverstärker
Amplificatore di potenza
Power amplifier
Amplificateur de puissance
Endverstärker
Amplificatore di potenza
Front speakers
Haut-parleurs avant
Frontlautsprecher
Diffusori anteriori
Fuse (15 A)
Fusible (15 A)
Sicherung (15 A)
Fusibile (15 A)
RCA pin cord (RC-63 (1 m), RC-64 (2 m) or RC-65 (5 m)) (not supplied)
Cordon à broche RCA (RC-63 (1 m), RC-64 (2 m) ou RC-65 (5 m)) (non fourni)
RCA-Kabel (RC-63 (1 m), RC-64 (2 m) oder RC-65 (5 m)) (nicht mitgeliefert)
Cavo a terminali RCA (RC-63 (1 m), RC-64 (2 m) o RC-65 (5 m)) (non in dotazione)
AMP REM
Max. supply current 0.3 A
Courant max. fourni 0,3 A
max. Versorgungsstrom 0,3 A
Alimentazione massima fornita 0,3 A
Blue/white striped
Rayé bleu/blanc
Blau-weiß gestreift
A strisce blu e bianche
to the interface cable of a car telephone
au câble dinterface d'un téléphone de voiture
an Verbindungskabel eines Autotelephons
al cavo interfaccia di un telefono per auto
TEL MUTE
Light blue
Bleu ciel
Hellblau
Azzurro
After connecting the rotary remote, slightly loosen the screw to fasten the plug holder ⑥.
Après avoir raccordé le satellite de télécommande, desserrez légèrement la vis pour fixer le porte-fiche ⑥.
Nach dem Anschließen des Joysticks lösen Sie die Schraube leicht, um den Steckerhalter ⑥ zu befestigen.
Dopo aver collegato il telecomando a rotazione, allentare leggermente la vite per fissare il fermaspina ⑥.
WARNING
Auxiliary power connectors may vary depending on the car.
Be sure to check the power connection diagram sheet supplied with the unit.
Improper connections may damage your car.
If the supplied power connecting cord can not be used with your car, consult your nearest Sony dealer.
AVERTISSEMENT
Le connecteur d'alimentation auxiliaire peut varier suivant le type de voiture.
Vérifiez le schéma du connexion d'alimentation fourni avec l'appareil.
Un raccordement incorrect risque d'occasionner des dommages à votre voiture.
Si le cordon d'alimentation fourni ne peut être utilisé avec votre voiture, consultez votre revendeur Sony.
VORSICHT
Die Hilfsstromanschlüsse können je nach Fahrzeugtyp unterschiedlich sein.
Sehen Sie im mitgelieferten Hilfsstromanschlußdiagramm nach, wie die Verbindungen ordnungsgemäß vorgenommen werden müssen.
Fehlerhafte Verbindungen können zu Schäden an ihrem Fahrzeug führen.
Wenn das mitgelieferte Netzverbindungskabel nicht für den Einsatz in Ihrem Fahrzeug geeignet ist, wenden Sie sich bitte an Ihren Sony-Händler.
Attenzione
Il connettore di alimentazione ausiliario può variare a seconda del tipo di macchina.
Accertarsi di seguire lo schema dei collegamenti dell'alimentazione fornito con l'apparecchio. Dei collegamenti errati potrebbero infatti provocare dei danni all'auto.
Se il cave di collegamento dell'alimentazione in dotazione non pu essere utilizzato con la vostra auto, consultare il revenditore Sony pi ù vicino.
to a car's speaker connector
vers un connecteur de haut-parleur de la voiture
an Lautsprecheranschluß
verso un connettore del diffusore dell'auto
to a car's an auxiliary power connector
vers un connecteur d'alimentation auxiliaire de la voiture
an Hilfsstromanschluß
verso un connettore di alimentazione ausiliaria dell'auto
7 5 3 1
8 6 4 2
1 3 5 7
2 4 6 8

Pin Broche Stift Pin	Colour Couleur Farbe Colore	Function Fonction Funktion Funzione	Pin Broche Stift Pin	Colour Couleur Farbe Colore	Function Fonction Funktion Funzione
1	Purple Mauve Violett Viola	+; Speaker, Rear, Right +; haut-parleur, arrière, droit +; Lautsprecher hinten rechts Diffusore, posteriore, destro	5	White Blanc Weiß Bianco	+; Speaker, Front, Left +; haut-parleur, avant, gauche +; Lautsprecher vorne links Diffusore, anteriore, sinistro
2		–; Speaker, Rear, Right –; haut-parleur, arrière, droit –; Lautsprecher hinten rechts Diffusore, posteriore, destro	6		–; Speaker, Front, Left –; haut-parleur, avant, gauche –; Lautsprecher vorne links Diffusore, anteriore, sinistro
3	Gray Gris Grau Grigio	+; Speaker, Front, Right +; haut-parleur, avant, droit +; Lautsprecher vorne rechts Diffusore, anteriore, destro	7	Green Vert Grün Verde	+; Speaker, Rear, Left +; haut-parleur, arrière, gauche +; Lautsprecher hinten links Diffusore, posteriore, sinistro
4		–; Speaker, Front, Right –; haut-parleur, avant, droit –; Lautsprecher vorne rechts Diffusore, anteriore, destro	8		–; Speaker, Rear, Left –; haut-parleur, arrière, gauche –; Lautsprecher hinten links Diffusore, posteriore, sinistro

Negative polarity positions 2, 4, 6, and 8 have striped cords.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
An den negativ gepolten Positionen (2, 4, 6 und 8) befinden sich gestreifte Kabel.
Le posizioni a polatità negativa 2, 4, 6 e 8 hanno cavi a strisce.

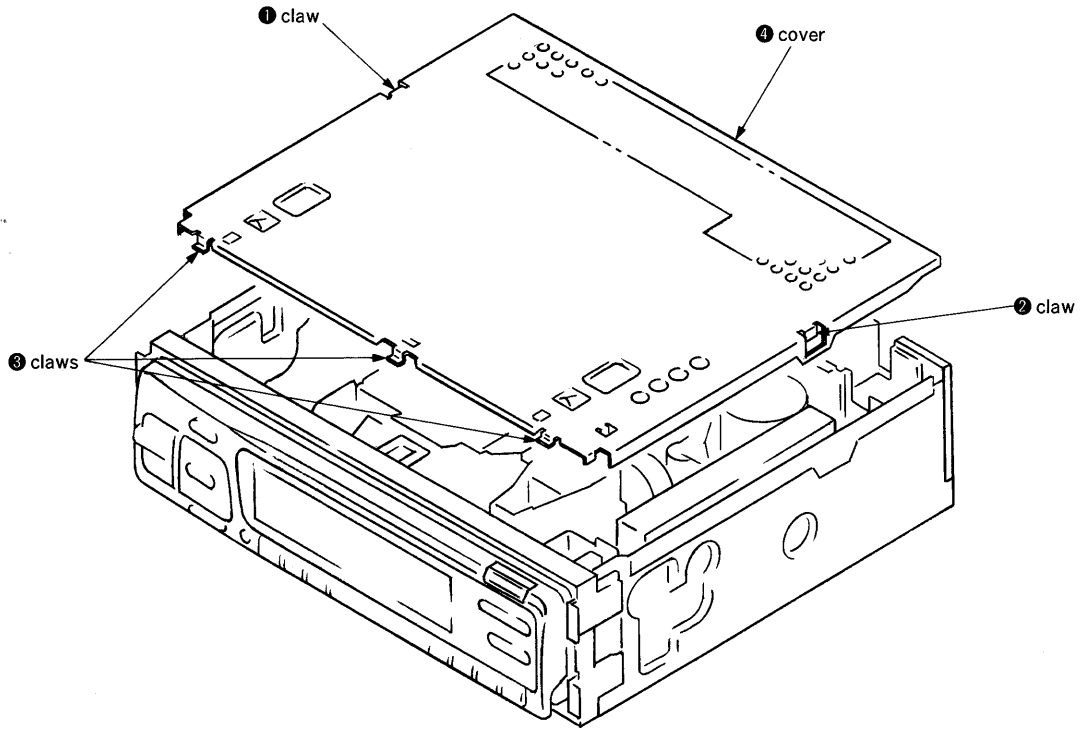
Pin Broche Stift Pin	Colour Couleur Farbe Colore	Function Fonction Funktion Funzione	Pin Broche Stift Pin	Colour Couleur Farbe Colore	Function Fonction Funktion Funzione
4	Yellow Jaune Gelb Giallo	continuous power supply alimentation continue permanente Stromversorgung alimentazione continua	7	Red Rouge Rot Rosso	switched power supply alimentation commutée geschaltete Stromversorgung alimentazione commutata
5	Blue Bleu Blau Blu	power aerial control antenne électrique Motorantennen-Steuerung antenna elettrica	8	Black Noir Schwarz Nero	ground masse Masse massa

Positions 1, 2, 3 and 6 do not have pins.
Les positions 1, 2, 3 et 6 ne comportent pas de broche.
An Position 1, 2, 3 und 6 befinden sich keine Stifte.
Le posizioni 1, 2, 3 e 6 non hanno pin.

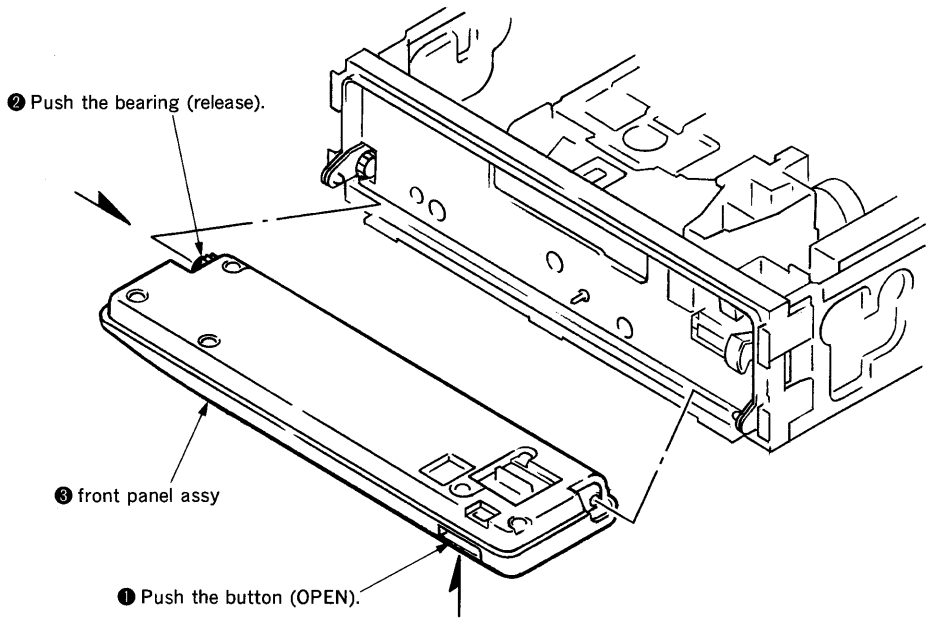
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

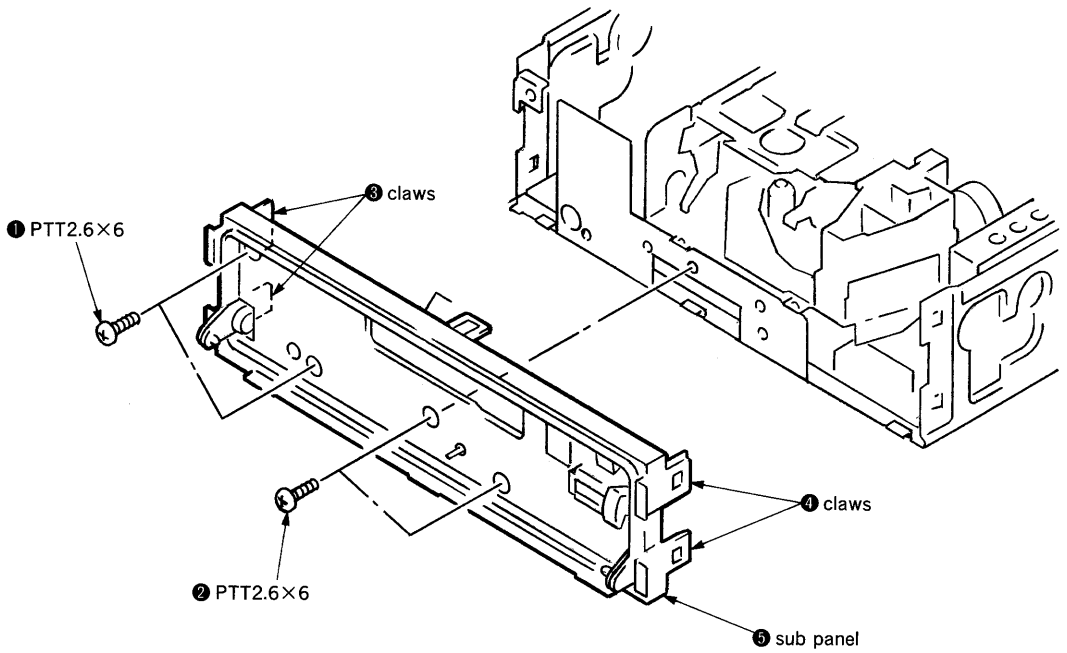
2-1. COVER



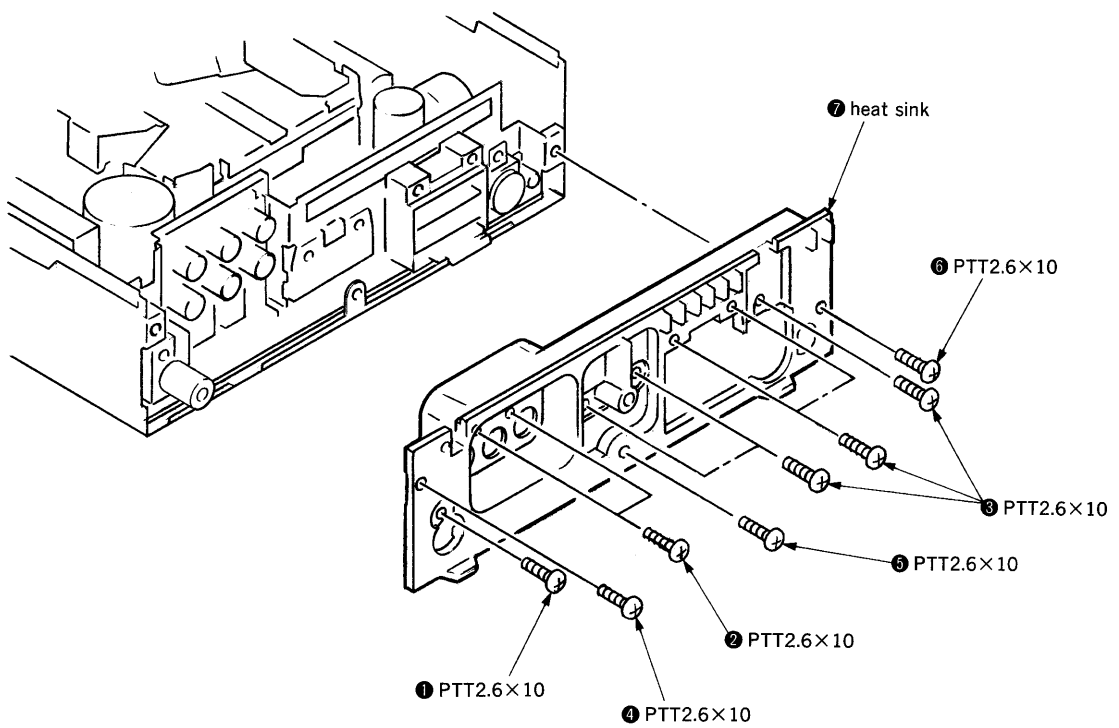
2-2. FRONT PANEL ASSY



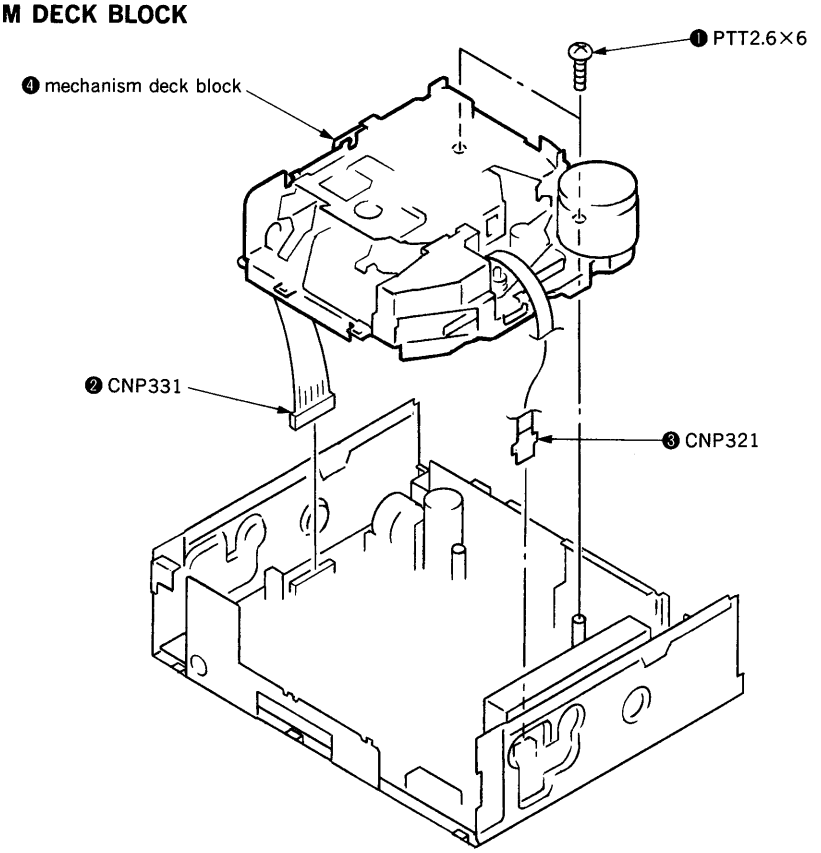
2-3. SUB PANEL



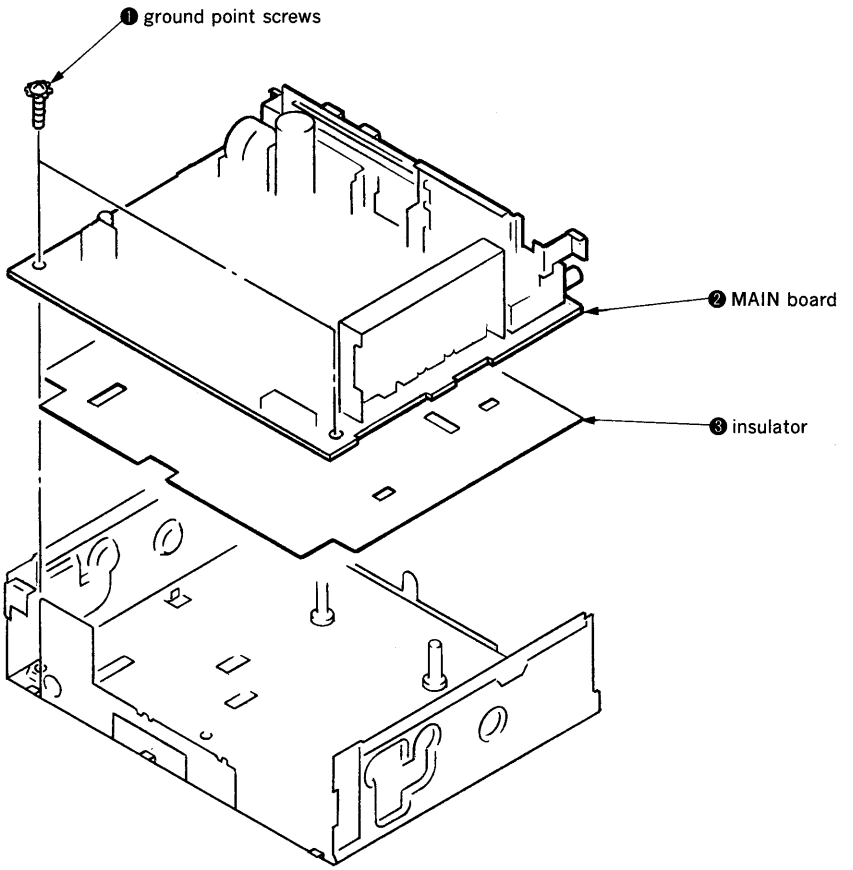
2-4. HEAT SINK



2-5. MECHANISM DECK BLOCK



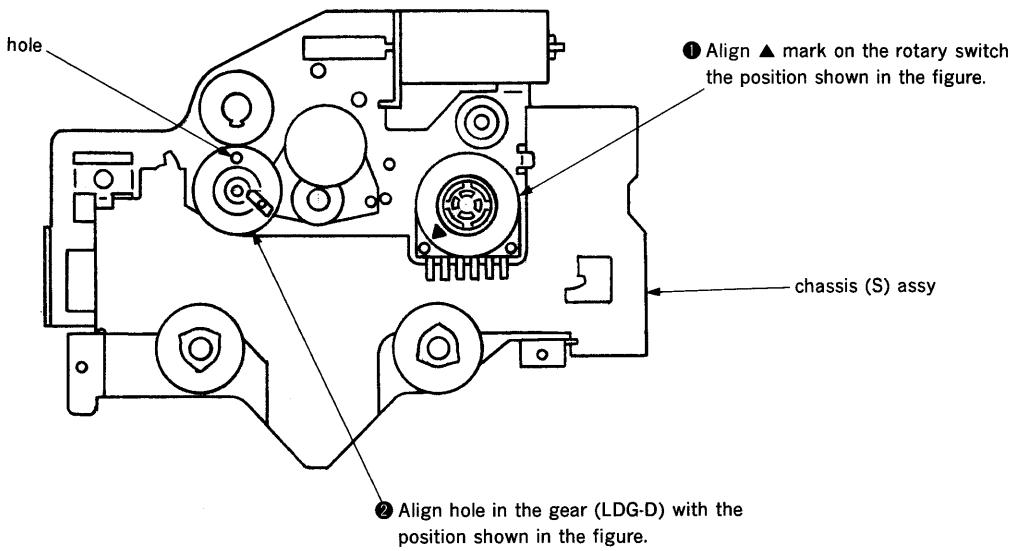
2-6. MAIN BOARD



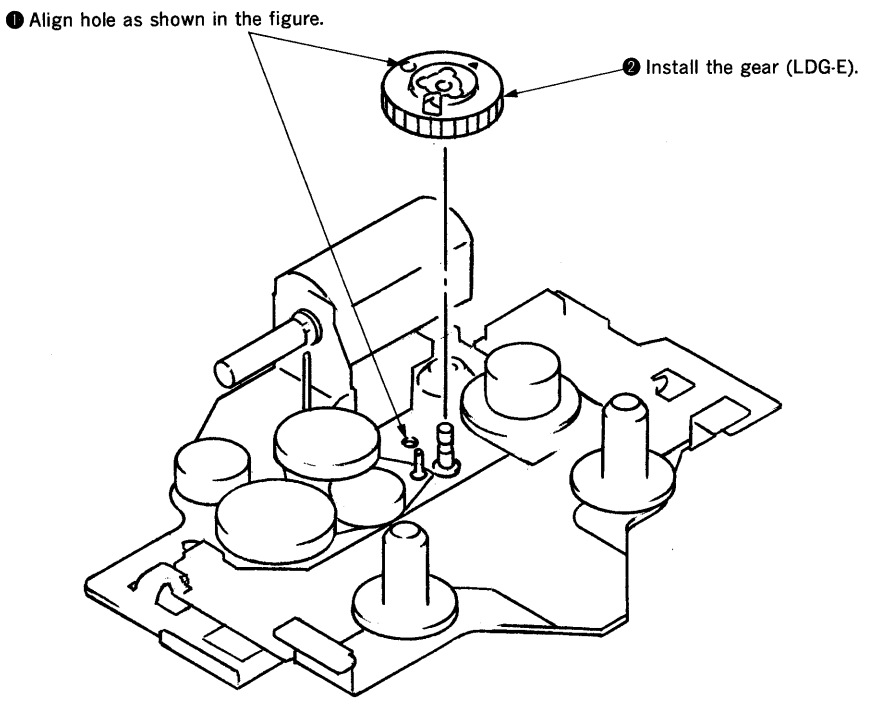
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note : Follow the assembly procedure in the numerical order given.

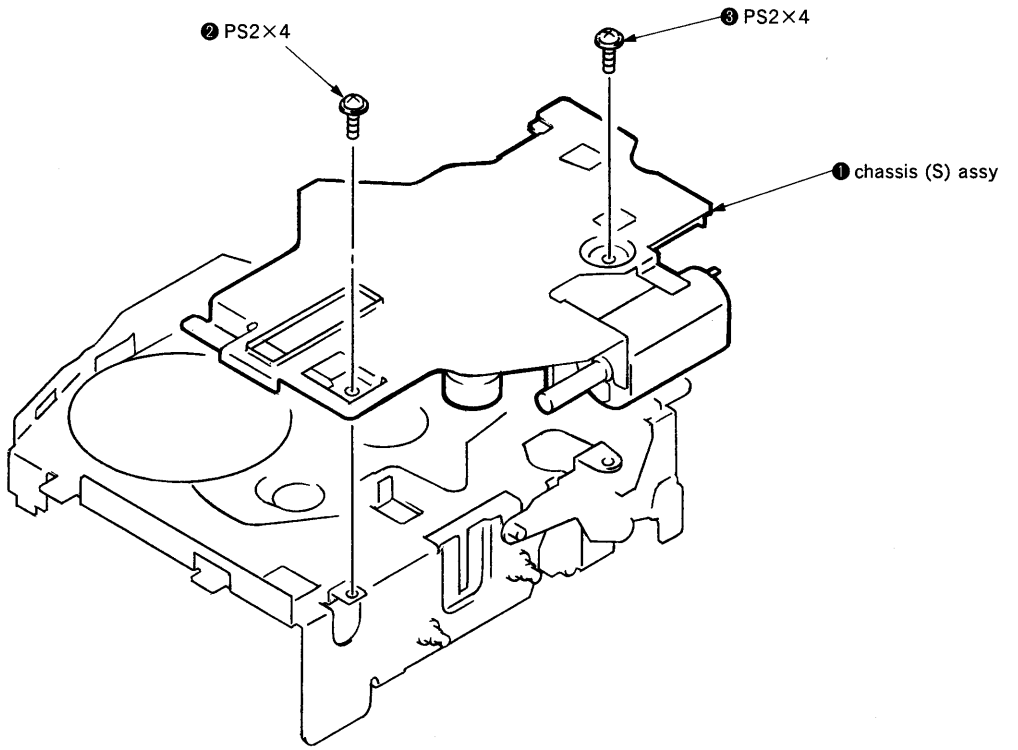
3-1. ALIGNMENT OF ROTARY SWITCH


hole
❶ Align ▲ mark on the rotary switch the position shown in the figure.
chassis (S) assy
❷ Align hole in the gear (LDG-D) with the position shown in the figure.

3-2. GEAR (LDG-E)



3-3. CHASSIS (S) ASSY



3-4. LEVER (MODE)

1) Align ▲ mark on the rotary switch with hole in the lever (mode). (See Fig. 1)
2) Fit on positions Ⓐ, Ⓑ and Ⓒ and install the lever (mode).

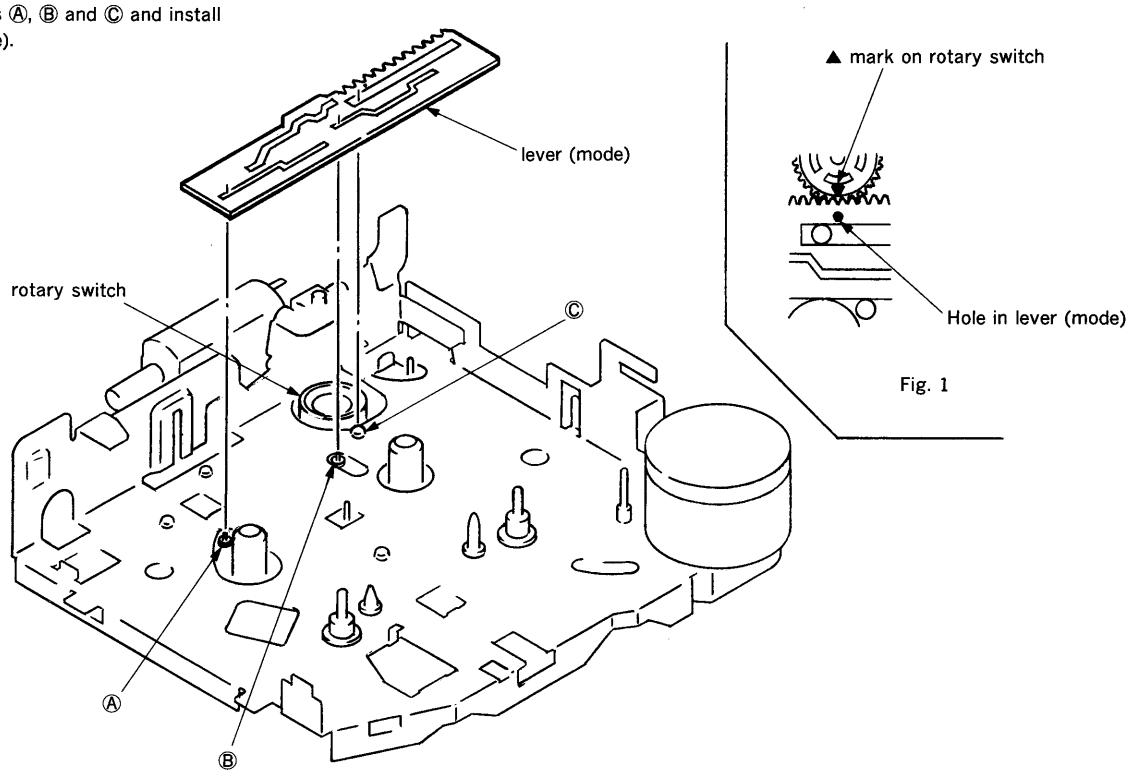
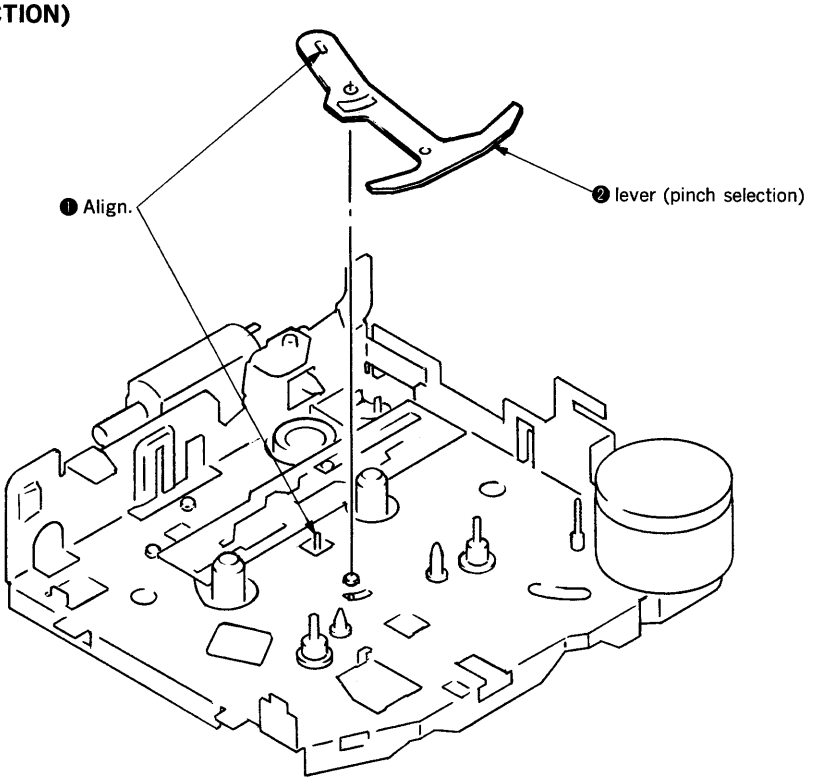
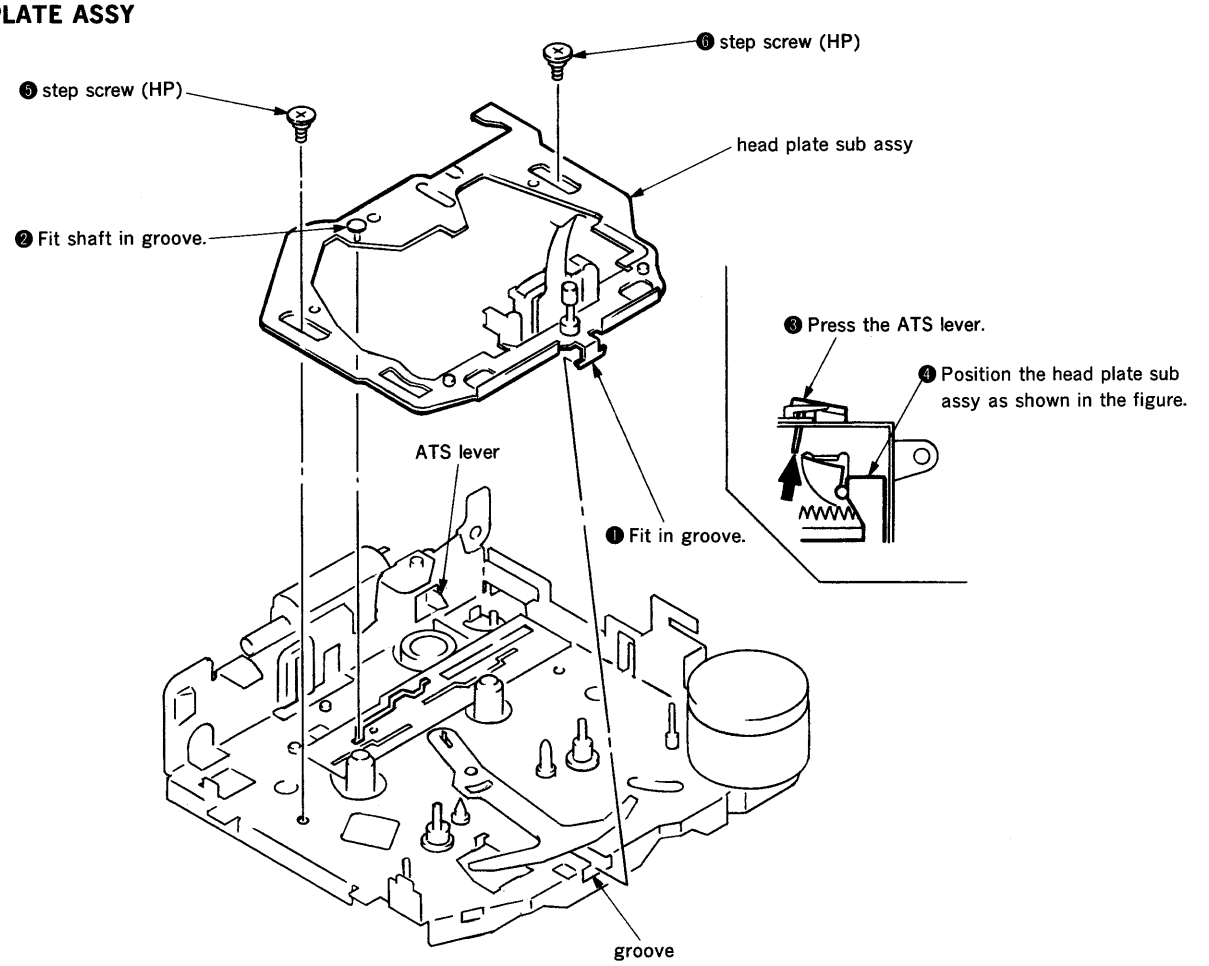


Fig. 1

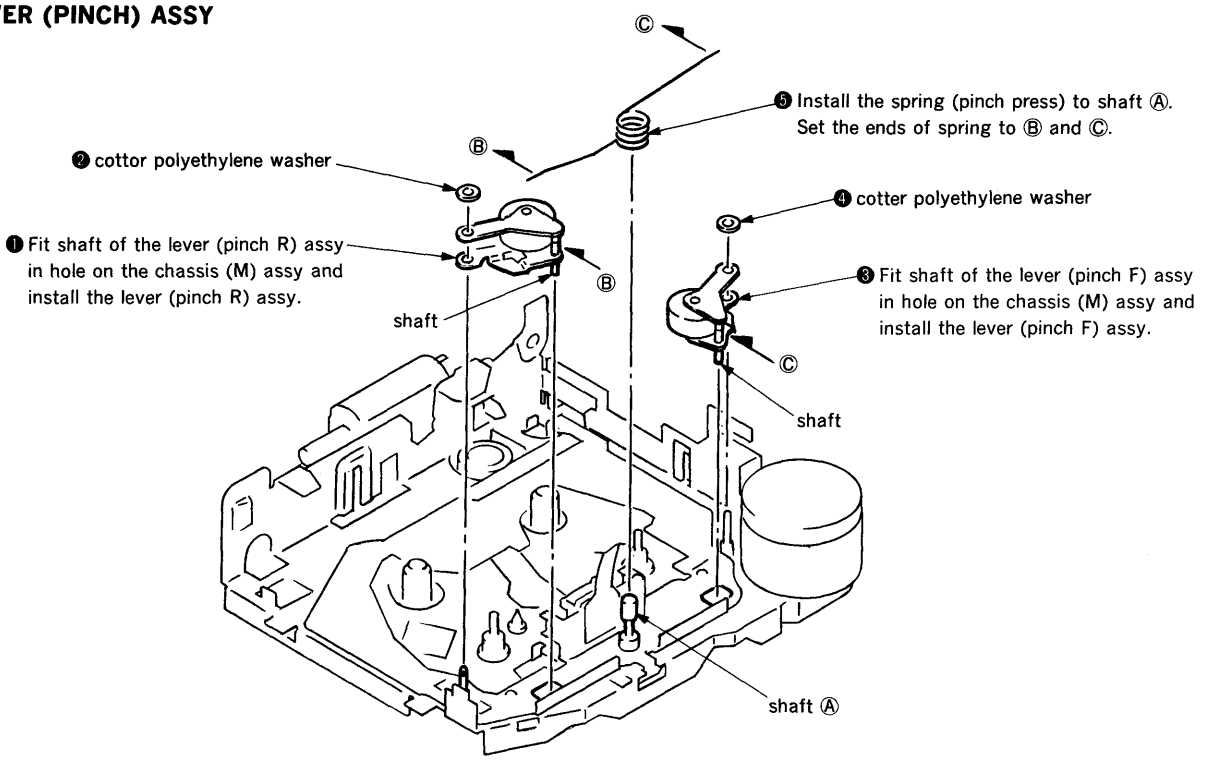
3-5. LEVER (PINCH SELECTION)



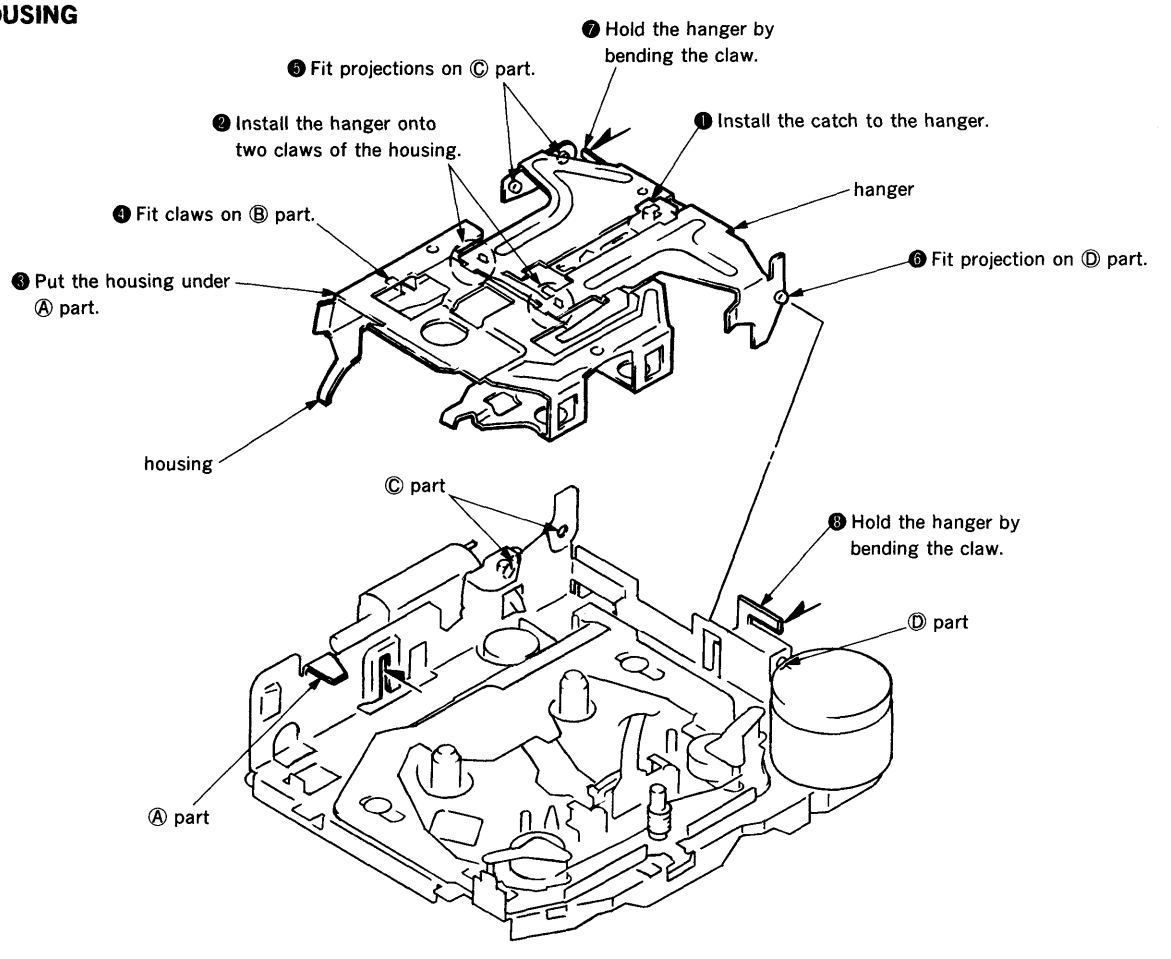
3-6. HEAD PLATE ASSY


❻ step screw (HP)
❺ step screw (HP)
head plate sub assy
❷ Fit shaft in groove.
❸ Press the ATS lever.
❹ Position the head plate sub assy as shown in the figure.
ATS lever
❶ Fit in groove.
groove

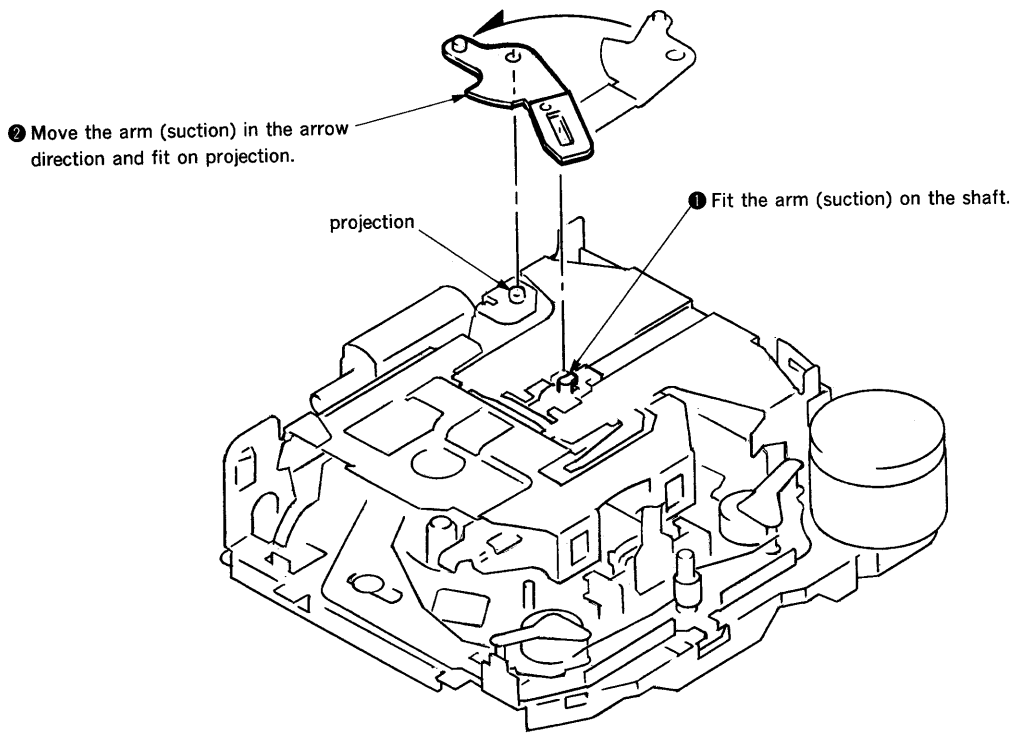
3-7. LEVER (PINCH) ASSY


Ⓒ
❺ Install the spring (pinch press) to shaft Ⓐ.
Set the ends of spring to Ⓑ and Ⓒ.
Ⓑ
❷ cottor polyethylene washer
❹ cotter polyethylene washer
❶ Fit shaft of the lever (pinch R) assy
in hole on the chassis (M) assy and
install the lever (pinch R) assy.
Ⓑ
❸ Fit shaft of the lever (pinch F) assy
in hole on the chassis (M) assy and
install the lever (pinch F) assy.
shaft
Ⓒ
shaft
shaft Ⓐ

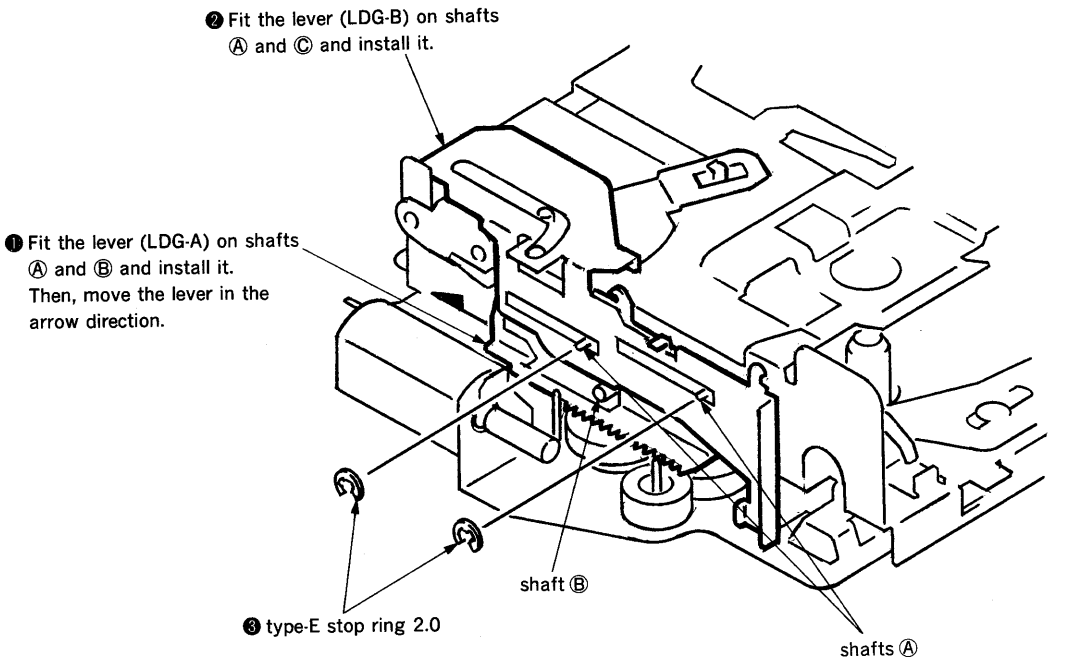
3-8. HOUSING



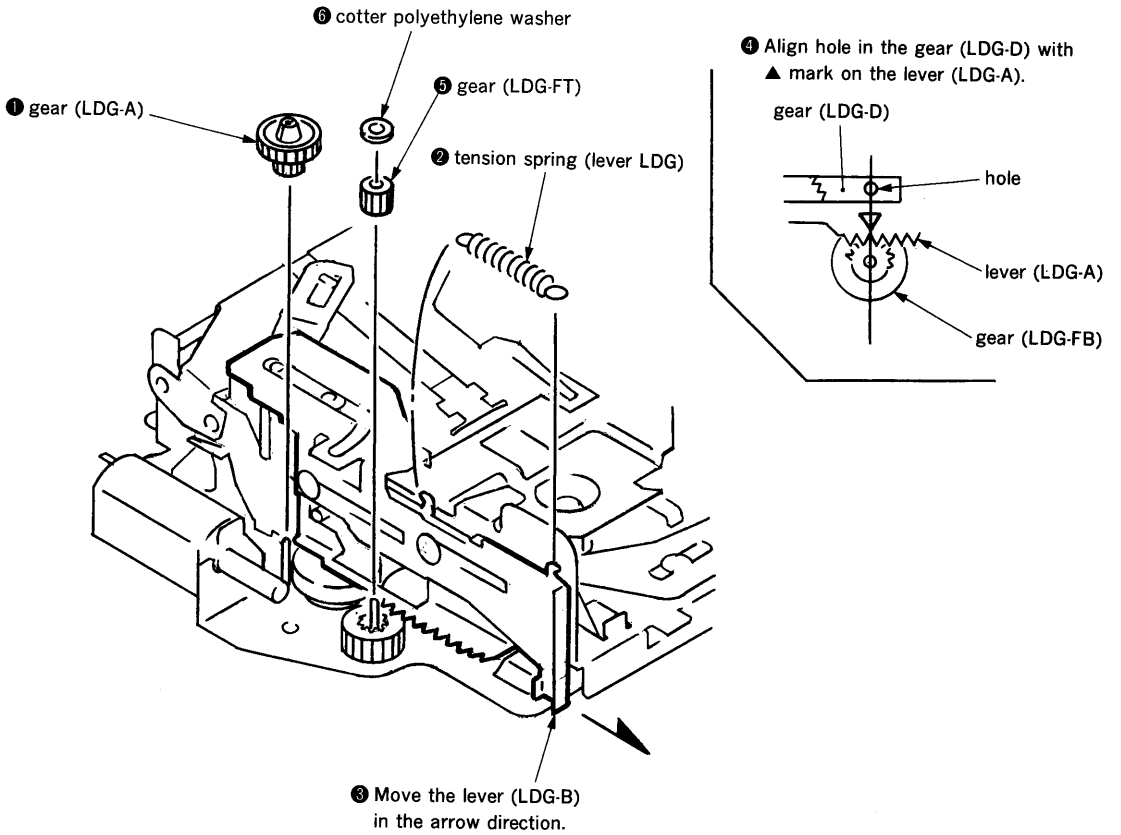
3-9. ARM (SUCTION)



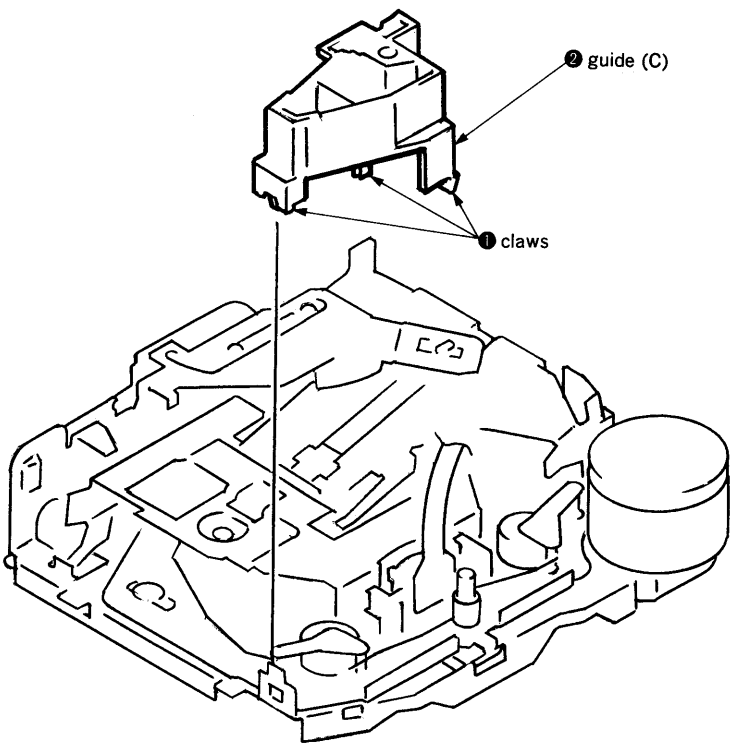
3-10. LEVER (LDG-B)


❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓒ and install it.
❶ Fit the lever (LDG-A) on shafts Ⓐ and Ⓑ and install it. Then, move the lever in the arrow direction.
shaft Ⓑ
❸ type-E stop ring 2.0
shafts Ⓐ

3-11. GEAR (LDG-FT)


❻ cotter polyethylene washer
❶ gear (LDG-A)
❺ gear (LDG-FT)
❷ tension spring (lever LDG)
❸ Move the lever (LDG-B) in the arrow direction.
❹ Align hole in the gear (LDG-D) with ▲ mark on the lever (LDG-A).
gear (LDG-D)
hole
lever (LDG-A)
gear (LDG-FB)

3-12. GUIDE (C)



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head　　Pinch roller
   Idler　　Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	35−65g•cm (0.49−0.90 oz•inch)
FWD Back Tension		0.5−5.0g•cm (0.01−0.07 oz•inch)
REV	CQ-102RC	35−65g•cm (0.49−0.90 oz•inch)
REV Back Tension		0.5−5.0g•cm (0.01−0.07 oz•inch)
FF, REW	CQ-201B	60−200g•cm (0.83−2.78 oz•inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 60g (more than 2.12 oz)
REV	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and MW Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

〈Set the Test Mode〉

1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

〈Release the Test mode〉

1. Push the "OFF" button.

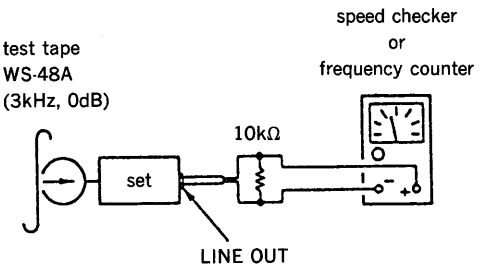
See the adjustment location from on page 26 for the adjustment.

DECK SECTION　**0dB=0.775V**

Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.



Specification: Constant speed

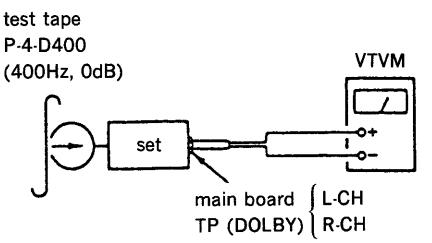
Speed checker	Frequency counter
−1.5 to +2.5%	2,955 to 3,075Hz

Adjustment Location: See page 26.

DOLBY Level Adjustment

Setting:

SHIFT button　　: ON (light up SET UP and PLAY MODE)
Preset [3] (PLAY MODE) button: NR OFF
SOUND (BAS) button　　: Center
SOUND (TRE) button　　: Center
SOUND (BAL) button　　: Center
SOUND (FAD) button　　: Center
SOUND (VOL) button　　: Maximum



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV121 (L-CH) and RV221 (R-CH) so that VTVM reading is −6±0.5 dB (0.37 to 0.41V).

Adjustment Location: See page 26.

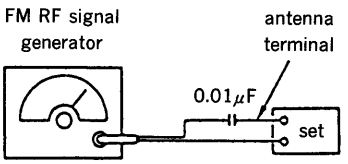
TUNER SECTION | **0dB=1μV**

Cautions during repair
When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

Setting :

SOURCE button : FM

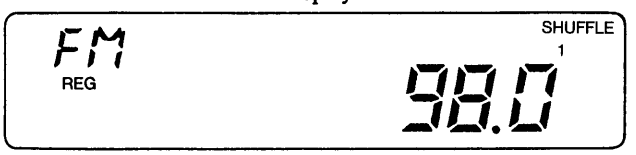


Carrier frequency : 98.0MHz
Output level : 22dB (12.6μV)
Mode : mono
Modulation : 1kHz, 22.5kHz deviation (30%)

Procedure :

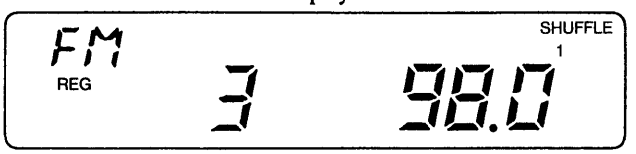
1. Set to the test mode. (See page 22.)
2. Push the [SOURCE] button and set to FM.

Display



3. Push the preset [3] button.

Display



4. Adjust with the volume RV2 on TU1 so that the "FM" indication turns to "FM0" indication on the display window.
   But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

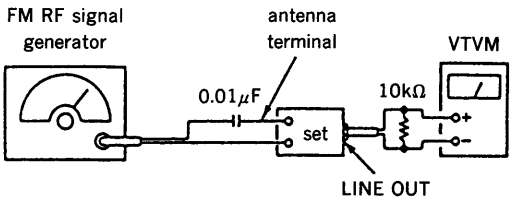
Display

Adjustment Location : See page 26.

FM Noise Focus Adjustment

Setting :

SOURCE button : FM



Carrier frequency : 98.0MHz
Output level : 60dB (1mV)
Mode : mono
Modulation : 1kHz, 75kHz deviation (100%)

Procedure :

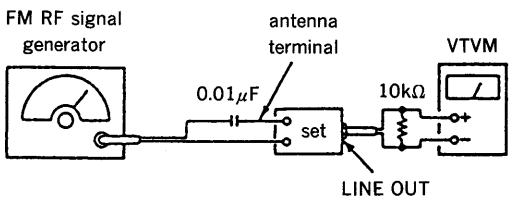
1. Tune the 98.0MHz.
2. The then output level is supposing that (A) dB.
3. Adjust with the volume RV3 on TU1 so that the output level is (A)−32dB then signal generator input set to −20dB.

Adjustment Location : See page 26.

FM Stereo Separation Adjustment

Setting :

SOURCE button : FM



Carrier frequency : 98.0MHz
Output level : 70dB (3.2mV)
Mode : stereo
Modulation : main : 1kHz, 33.75kHz deviation (45%)
sub : 1kHz, 33.75kHz deviation (45%)
19kHz pilot : 7.5kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU1 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU1 for minimum reading.

L-CH Stereo separation : Ⓐ−Ⓑ
R-CH Stereo separation : Ⓒ−Ⓓ
The separations of both channels should be equal.

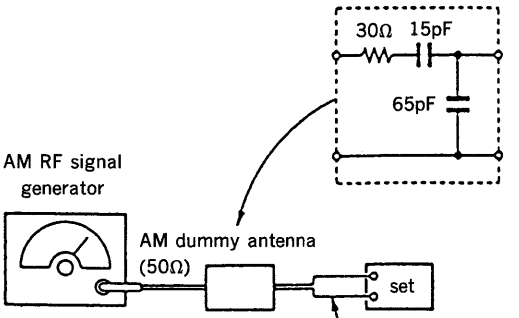
Specification : Separation more than 30dB

Adjustment Location : See page 26.

MW Auto Scan/Stop Level Adjustment

Setting :

SOURCE button : MW

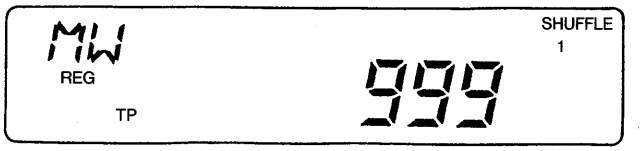


Carrier frequency : 999kHz
30% amplitude modulation by 1kHz signal
Output level : 33dB (44.7μV)

Procedure :

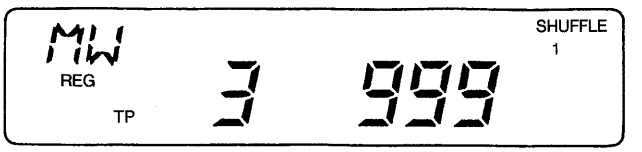
1. Set to the test mode. (See page 22.)
2. Push the [SOURCE] button and set to MW.

Display



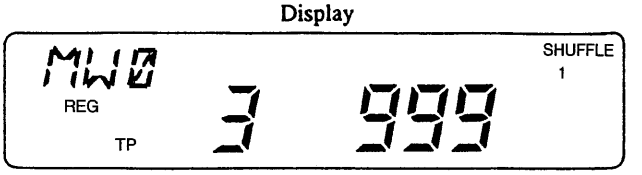
3. Push the preset [3] button.

Display



4. Adjust with the volume RV1 on TU1 so that the "MW" indication turns to "MW0" indication on the display window.
   But, in case of already indicated "MW0", turn the RV1 so that put out light "0" indication and adjustment.

Display

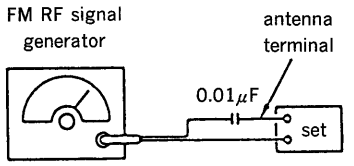


Adjustment Location : See page 26.

RDS S-Meter Adjustment

Setting :

SOURCE button : FM

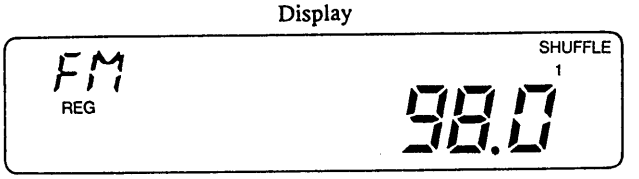


Carrier frequency : 98.0MHz
Output level : 35dB (56.2μV)
Mode : mono
Modulation : no modulation

Procedure :

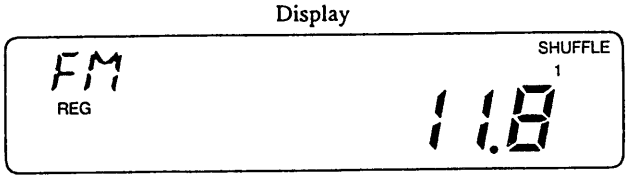
1. Set to the test mode. (See page 22.)
2. Push the [SOURCE] button and set to FM.

Display



3. Push the preset [10] button.
4. Adjust RV1 so that the display indication is "11.8".

Display

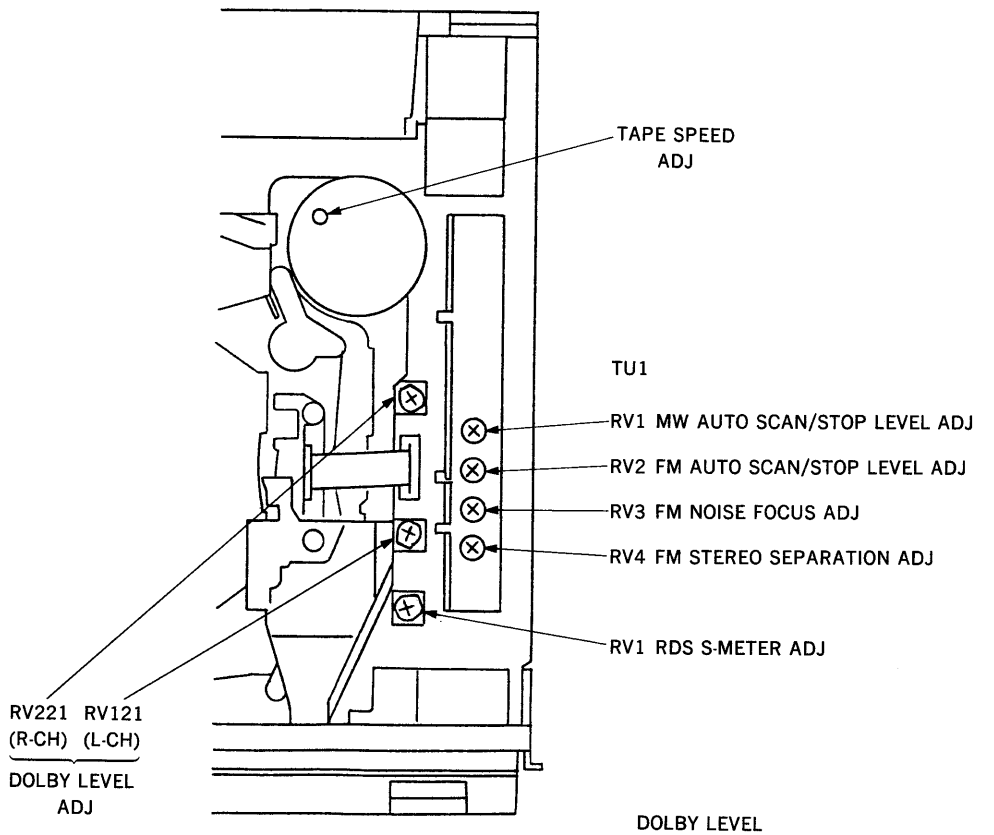


Specification : Display indication : 11.6 to 12.0

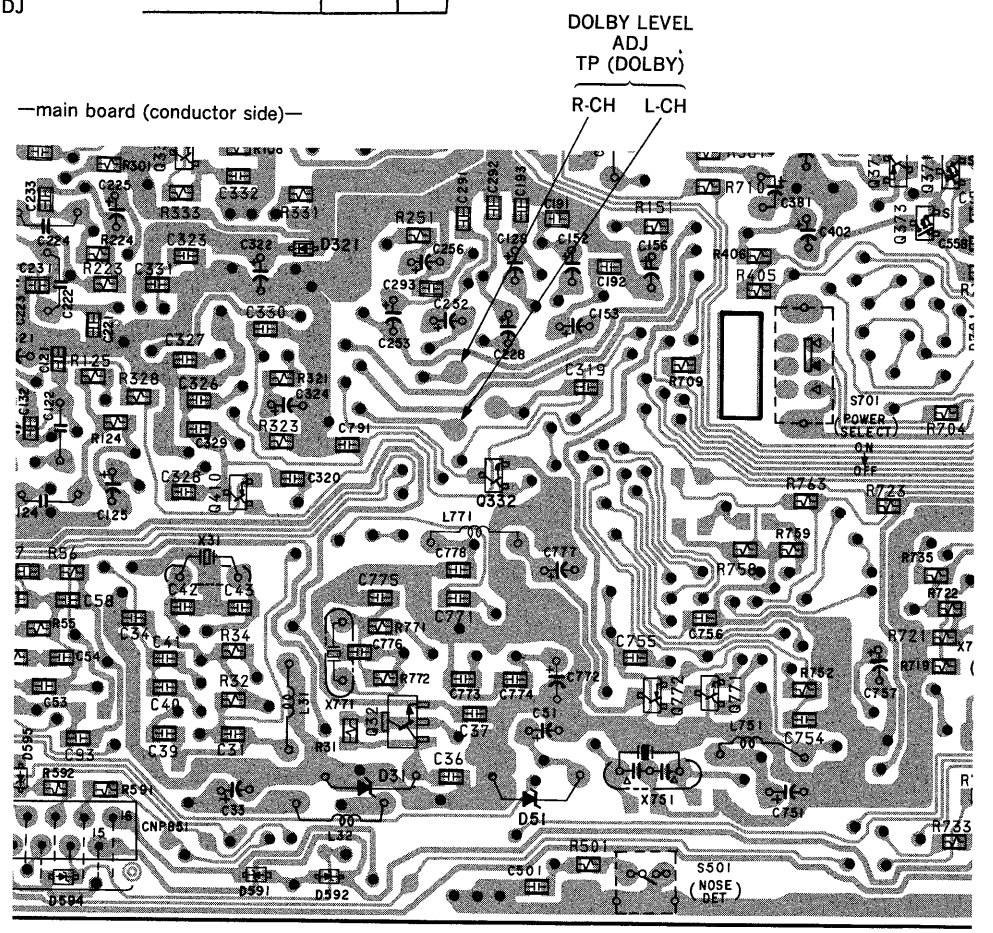
Adjustment Location : See page 26.

Adjustment Location :

—SET UPPER VIEW—


TAPE SPEED ADJ
TU1
RV1 MW AUTO SCAN/STOP LEVEL ADJ
RV2 FM AUTO SCAN/STOP LEVEL ADJ
RV3 FM NOISE FOCUS ADJ
RV4 FM STEREO SEPARATION ADJ
RV1 RDS S-METER ADJ
RV221 (R-CH) RV121 (L-CH)
DOLBY LEVEL ADJ

—main board (conductor side)—



SECTION 6
DIAGRAMS

6-1. IC PIN DESCRIPTIONS

• IC701 μPD78058GC-146-3B9 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	DSTSEL1	I	Destination the first setting A/D input
2	RC IN0	I	Rotary commander input
3	DIMMER	I	
4	AVSS	—	GND
5, 6	(NC)	—	Not used.
7	AVREF	—	D/A conversion reference power supply voltage
8—10	(NC)	—	Not used.
11	COLSEL	I	Illumination color select input. Fixed at "L" (AMBER).
12	LCDSO	O	LCD serial data output
13	LCDCKO	O	LCD serial clock output
14	LCDCE	O	LCD chip enable output
15	$\overline{\text{LCDINH}}$	O	LCD blank display control output
16	UNISI	I	Serial data input
17	UNISO	O	Serial data output
18	UNICKI	I	Serial clock input
19	UNICKO	O	Serial clock output
20	$\overline{\text{BUSON}}$	O	BUS ON control output
21	$\overline{\text{SYSRST}}$	O	System reset control output
22	AMPON	O	Power amplifier power control output
23, 24	(NC)	—	Not used.
25	PW ON	O	System power control output
26	$\overline{\text{ILLON}}$	O	Illumination power control output
27	COLOR	O	Illumination color select control output
28	$\overline{\text{AMSON}}$	O	Tape AMS (Auto Music Sensor) control output
29	REL	I	Reel table rotation detect input
30	$\overline{\text{MTLIN}}$	I	Auto METAL detect input
31, 32	POS3, POS2	I	Position signal detect input
33	GND	—	GND
34, 35	POS1, POS0	I	Position signal detect input
36	LM LOD	O	Loading motor control output (Loading direction : forward)
37	LM EJ	O	Loading motor control output (Eject direction : reverse)
38	N/R OUT	O	Forward/Reverse detect output
39	MTLON	O	METAL control output
40	CMON	O	Capstan motor control output
41	TAPON	O	Tape power control output
42	PWSEL	I	Power select the first setting input
43	RC IN1	I	Rotary commander input
44	$\overline{\text{TESTIN}}$	I	Test mode setting input
45	$\overline{\text{EQSEL}}$	I	Equalizer connection with/without the first setting input
46	BEEP	O	Buzzer control output
47	MUT	O	System mute control output
48	VOL CE	O	Electronic volume serial chip enable output
49	SUB CE	O	Sub volume serial chip enable output. Not used in this set.

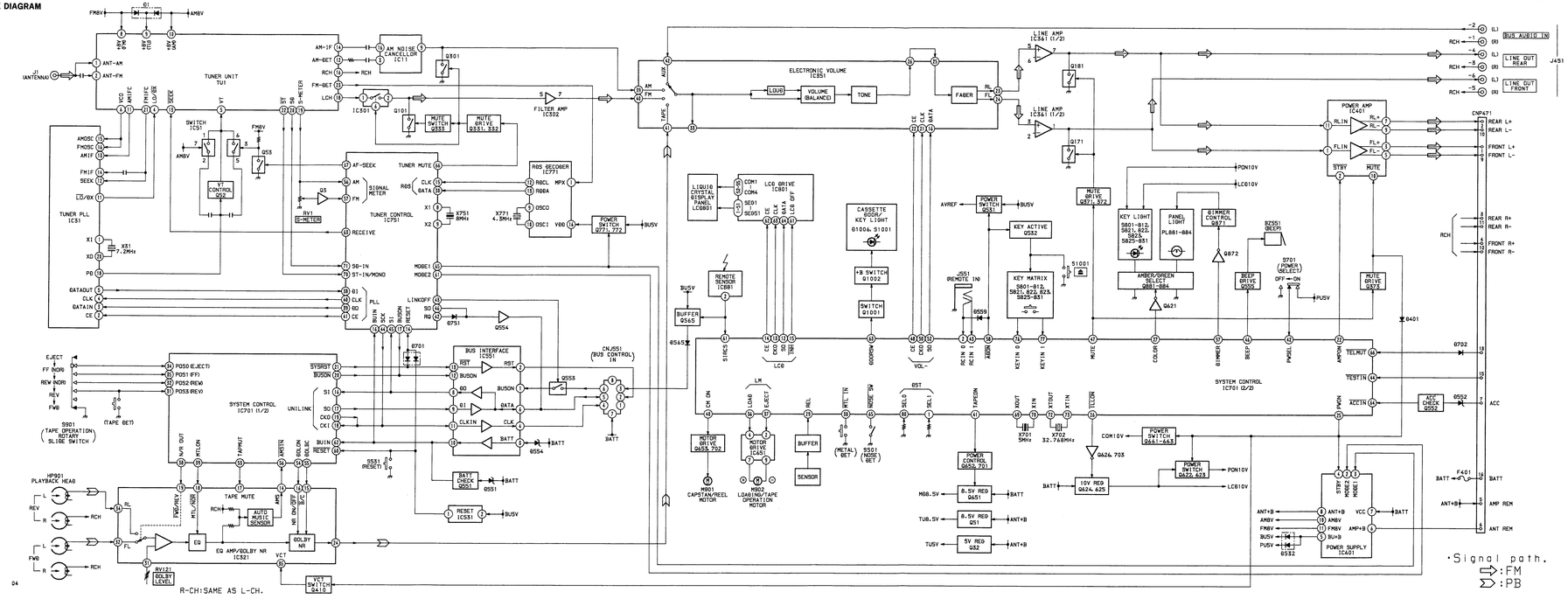
Pin No.	Pin Name	I/O	Pin Description
50	VOL CKO	O	Electronic volume serial clock output
51	SUB CKO	O	Sub volume serial clock output. Not used in this set.
52	VOL SO	O	Electronic volume serial data output
53	TAPMUT	O	Tape mute control output
54	DOLON	O	DOLBY control output
55	DOLBC	O	DOLBY B/C select control output
56	$\overline{\text{AMSIN}}$	I	At AMS, music with/without detect input
57	DIMMER	O	Dimmer control output
58	$\overline{\text{AD ON}}$	O	A/D select power control output
59	RAMBU	I	RAM reset detect input
60	$\overline{\text{RESET}}$	I	Reset input
61	SIRCS	I	Remote commander input
62	BUIN	I	Back-up power detect input
63	$\overline{\text{DOORSW}}$	I	Front panel open/close detect input
64	$\overline{\text{ACCIN}}$	I	Accessory power detect input
65	$\overline{\text{NOSESW}}$	I	Front panel with/without detect input
66	$\overline{\text{TELMUT}}$	I	Telephone mute detect input
67	KEYACK	I	Key input acknowledge
68	VDD	—	Microcomputer power voltage supply
69	X OUT	—	Main ceramic oscillator output (5MHz)
70	X IN	—	Main ceramic oscillator input (5MHz)
71	GND	—	GND
72	XT OUT	—	Sub crystal oscillator output (32.768kHz)
73	XT IN	—	Sub crystal oscillator input (32.768kHz)
74	AVDD	—	A/D conversion power supply voltage
75	AVREF	—	A/D conversion reference power supply voltage
76, 77	KEYIN0, KEYIN1	I	Key input
78	(FUNCSEL0)	I	Key function select the first setting input
79	FUNCSEL1	I	Key function select the first setting input
80	DSTSEL0	I	Destination the first setting A/D input

• IC751 MN1883220S4A1 (TUNER CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1—6	—	—	Not used. (Open)
7	VDD	—	Power supply terminal (+5V)
8	X1	—	Clock input (8MHz)
9	X2	—	Clock output (8MHz)
10	GND	—	GND
11	XI	—	Not used. (Connect to GND.)
12	XO	—	Not used. (Open)
13	EX2	—	Not used. (Connect to GND.)
14	RESET	I	Reset input
15	RDS-CLK	I	RDS CLK signal input from the RDS decoder (IC771).
16	BU IN	I	Back-up power supply detection input. "H" : Back-up ON
17	BUSON	I	BUS interface ON/OFF selection input from the System Control (IC701).
18—29	—	—	Not used. (Open)
30	RDS-DATA	I	RDS DATA signal input from the RDS decoder (IC771).
31, 32	—	—	Not used. (Fixed at "L".)
33—35	—	—	Not used. (Open)
36, 37	—	—	Not used. (Connect to GND.)
38	PLL-DI	I	Data input from the PLL (IC31).
39	PLL-DO	O	Data output to the PLL (IC31).
40	PLL-CLK	O	Clock output to the PLL (IC31).
41	CE	O	Chip enable output to the PLL (IC31).
42	RQ	O	BUS interface request output. Terminal for requesting communication requests at "H".
43	LINK-OFF	O	BUS interface link ON/OFF selection output. "H" : LINK OFF
44	SCK	I	Serial clock input from the System Control (IC701).
45	SI	I	Data input from the BUS interface (IC551).
46	SO	O	Data output to the BUS interface (IC551).
47	VDD	—	Power supply terminal (+5V)
48	AVDD	—	Power supply terminal (+5V)
49	VREF	I	Reference voltage input terminal of A/D conversion.
50, 51	—	—	Not used. (Connect to GND.)
52	SRAM-RST	I	SRAM reset input
53	MUTE-SEL	—	Not used. (Connect to GND.)
54	DIST-SEL1	I	Desination selection input terminal. (Fixed at "L".)
55	DIST-SEL0	I	Desination selection input terminal. (Fixed at "L".)
56	AM-S. METER	I	AM S meter voltage detection input
57	FM-S. METER	I	FM S meter voltage detection input. Uses the A/D conversion functions during BTM and RDS.
58—60	—	—	Not used. (Connect to GND.)
61	MODE2	O	Tuner ON/OFF selection output to the Power Supply (IC601).
62	—	—	Not used. (Open)
63	RECEIVE	I	Receive input. Input level "L" when change the frequency.
64	—	—	Not used. (Fixed at "L".)
65	MODE1	O	FM ON/OFF selection output to the Power Supply (IC601).
66	TUNER-MUTE	O	Muting control signal output
67	AF-SEEK	O	Not used. (Open)

Pin No.	Pin Name	I/O	Pin Description
68	—	—	Not used. (Fixed at "L".)
69	—	—	Not used. (Open)
70	ST-IN/MONO	I	STEREO indicator control input
71	SD-IN	I	SD input
72—80	—	—	Not used. (Open)

6-2. BLOCK DIAGRAM



6-3. PRINTED WIRING BOARDS—MAIN SECTION—

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	F-12	IC351	F-7
D31	I-15	IC361	D-7
D51	I-16	IC371	D-8
D321	F-15	IC401	B-17
D371	F-17	IC531	H-2
D372	F-17	IC551	E-3
D401	F-5	IC601	E-19
D402	B-7	IC651	F-2
D403	D-18	IC701	G-4
D404	D-19	IC751	H-6
D405	E-6	IC771	H-7
D471	D-19		
D472	C-4	Q3	H-13
D473	C-4	Q32	I-15
D501	J-4	Q51	I-7
D502	J-4	Q52	I-9
D531	G-21	Q53	I-12
D532	G-21	Q101	E-9
D533	J-21	Q171	B-8
D534	I-4	Q181	B-8
D551	F-3	Q201	E-13
D552	F-5	Q271	B-8
D553	E-19	Q281	B-8
D554	E-19	Q301	D-14
D555	C-22	Q331	F-8
D556	C-21	Q332	H-16
D557	C-22	Q333	F-14
D558	C-21	Q371	F-18
D559	D-21	Q372	F-18
D565	F-3	Q373	F-18
D575	F-3	Q410	H-14
D591	J-15	Q531	I-3
D592	J-15	Q532	I-4
D594	J-14	Q551	F-19
D595	I-13	Q552	F-19
D596	J-8	Q553	E-3
D597	I-13	Q554	E-20
D598	J-13	Q555	J-20
D621	H-21	Q565	E-20
D651	G-21	Q621	I-20
D652	E-21	Q622	I-21
D661	D-17	Q623	I-20
D701	G-18	Q624	I-21
D702	C-5	Q625	H-21
D751	H-6	Q626	I-21
D1001	J-26	Q651	G-21
D1002	J-25	Q652	G-2
D1003	J-25	Q653	F-21
D1004	J-25	Q661	F-5
D1005	J-25	Q662	E-17
D1006	H-24	Q663	E-17
		Q701	G-3
IC11	D-9	Q702	G-3
IC31	I-8	Q703	G-20
IC51	H-9	Q771	I-17
IC301	F-9	Q772	I-17
IC302	E-9	Q1001	J-25
IC321	G-9	Q1002	I-25

Note :
- ○— : parts extracted from the component side.
- ● : Through hole.
- ▩ : Pattern on the side which is seen. (The other layer's patterns are not indicated.)

[MAIN BOARD] (SIDE A)

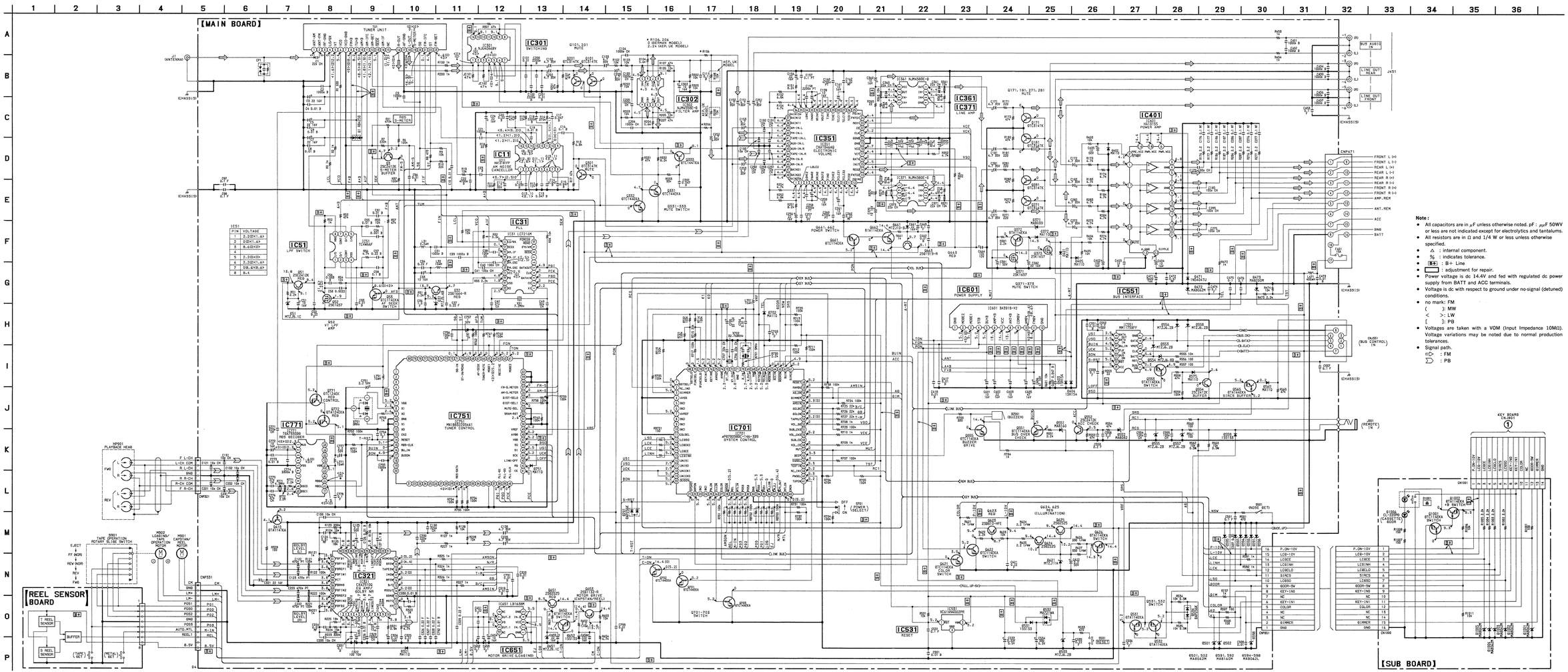
[MAIN BOARD] (SIDE B)

[REEL SENSOR BOARD]

[SUB BOARD] (SIDE A)

[SUB BOARD] (SIDE B)

6-4. SCHEMATIC DIAGRAM—MAIN SECTION— ●Refer to page 51 for IC Block Diagrams.


【MAIN BOARD】
【SUB BOARD】
【REEL SENSOR BOARD】
IC301
IC302
IC351
IC361
IC371
IC401
IC551
IC601
IC701
IC751
IC771
IC321
IC651
IC531
IC11
IC31
IC51
Q101, 201 MUTE
Q171, 181, 271, 281 MUTE
Q371~373 MUTE SWITCH
Q331~333 MUTE SWITCH
Q401, 402 POWER SWITCH
Q701~703 SWITCH
Q751 POWER (SELECT)
Q501, 502 SWITCH
Q551, 552 SWITCH
Q651 MOTOR DRIVE (CAPSTAN/REEL)
Q771 BUS OVER CHECK
Q772 BUZZER DRIVE
Q773 SIRCS BUFFER
Q774 BUS BUFFER
Q775 SWITCH
Q776 SWITCH
Q777 SWITCH
Q778 SWITCH
Q779 SWITCH
Q780 SWITCH
Q781 SWITCH
Q782 SWITCH
Q783 SWITCH
Q784 SWITCH
Q785 SWITCH
Q786 SWITCH
Q787 SWITCH
Q788 SWITCH
Q789 SWITCH
Q790 SWITCH
Q791 SWITCH
Q792 SWITCH
Q793 SWITCH
Q794 SWITCH
Q795 SWITCH
Q796 SWITCH
Q797 SWITCH
Q798 SWITCH
Q799 SWITCH
Q7A0 SWITCH
Q7A1 SWITCH
Q7A2 SWITCH
Q7A3 SWITCH
Q7A4 SWITCH
Q7A5 SWITCH
Q7A6 SWITCH
Q7A7 SWITCH
Q7A8 SWITCH
Q7A9 SWITCH
Q7AA SWITCH
Q7AB SWITCH
Q7AC SWITCH
Q7AD SWITCH
Q7AE SWITCH
Q7AF SWITCH
Q7AG SWITCH
Q7AH SWITCH
Q7AI SWITCH
Q7AJ SWITCH
Q7AK SWITCH
Q7AL SWITCH
Q7AM SWITCH
Q7AN SWITCH
Q7AO SWITCH
Q7AP SWITCH
Q7AQ SWITCH
Q7AR SWITCH
Q7AS SWITCH
Q7AT SWITCH
Q7AU SWITCH
Q7AV SWITCH
Q7AW SWITCH
Q7AX SWITCH
Q7AY SWITCH
Q7AZ SWITCH
Q7B0 SWITCH
Q7B1 SWITCH
Q7B2 SWITCH
Q7B3 SWITCH
Q7B4 SWITCH
Q7B5 SWITCH
Q7B6 SWITCH
Q7B7 SWITCH
Q7B8 SWITCH
Q7B9 SWITCH
Q7BA SWITCH
Q7BB SWITCH
Q7BC SWITCH
Q7BD SWITCH
Q7BE SWITCH
Q7BF SWITCH
Q7BG SWITCH
Q7BH SWITCH
Q7BI SWITCH
Q7BJ SWITCH
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Q7BL SWITCH
Q7BM SWITCH
Q7BN SWITCH
Q7BO SWITCH
Q7BP SWITCH
Q7BQ SWITCH
Q7BR SWITCH
Q7BS SWITCH
Q7BT SWITCH
Q7BU SWITCH
Q7BV SWITCH
Q7BW SWITCH
Q7BX SWITCH
Q7BY SWITCH
Q7BZ SWITCH
Q7C0 SWITCH
Q7C1 SWITCH
Q7C2 SWITCH
Q7C3 SWITCH
Q7C4 SWITCH
Q7C5 SWITCH
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Q7C7 SWITCH
Q7C8 SWITCH
Q7C9 SWITCH
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Q7CB SWITCH
Q7CC SWITCH
Q7CD SWITCH
Q7CE SWITCH
Q7CF SWITCH
Q7CG SWITCH
Q7CH SWITCH
Q7CI SWITCH
Q7CJ SWITCH
Q7CK SWITCH
Q7CL SWITCH
Q7CM SWITCH
Q7CN SWITCH
Q7CO SWITCH
Q7CP SWITCH
Q7CQ SWITCH
Q7CR SWITCH
Q7CS SWITCH
Q7CT SWITCH
Q7CU SWITCH
Q7CV SWITCH
Q7CW SWITCH
Q7CX SWITCH
Q7CY SWITCH
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Q7D1 SWITCH
Q7D2 SWITCH
Q7D3 SWITCH
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Q7D5 SWITCH
Q7D6 SWITCH
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Q7D8 SWITCH
Q7D9 SWITCH
Q7DA SWITCH
Q7DB SWITCH
Q7DC SWITCH
Q7DD SWITCH
Q7DE SWITCH
Q7DF SWITCH
Q7DG SWITCH
Q7DH SWITCH
Q7DI SWITCH
Q7DJ SWITCH
Q7DK SWITCH
Q7DL SWITCH
Q7DM SWITCH
Q7DN SWITCH
Q7DO SWITCH
Q7DP SWITCH
Q7DQ SWITCH
Q7DR SWITCH
Q7DS SWITCH
Q7DT SWITCH
Q7DU SWITCH
Q7DV SWITCH
Q7DW SWITCH
Q7DX SWITCH
Q7DY SWITCH
Q7DZ SWITCH
Q7E0 SWITCH
Q7E1 SWITCH
Q7E2 SWITCH
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Q7EC SWITCH
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Q7EE SWITCH
Q7EF SWITCH
Q7EG SWITCH
Q7EH SWITCH
Q7EI SWITCH
Q7EJ SWITCH
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Q7EL SWITCH
Q7EM SWITCH
Q7EN SWITCH
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Q7EP SWITCH
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Q7ER SWITCH
Q7ES SWITCH
Q7ET SWITCH
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Q7EV SWITCH
Q7EW SWITCH
Q7EX SWITCH
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Q7EZ SWITCH
Q7F0 SWITCH
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Q7F2 SWITCH
Q7F3 SWITCH
Q7F4 SWITCH
Q7F5 SWITCH
Q7F6 SWITCH
Q7F7 SWITCH
Q7F8 SWITCH
Q7F9 SWITCH
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Q7FB SWITCH
Q7FC SWITCH
Q7FD SWITCH
Q7FE SWITCH
Q7FF SWITCH
Q7FG SWITCH
Q7FH SWITCH
Q7FI SWITCH
Q7FJ SWITCH
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Q7FN SWITCH
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Q7FT SWITCH
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Q7FX SWITCH
Q7FY SWITCH
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Q7GF SWITCH
Q7GG SWITCH
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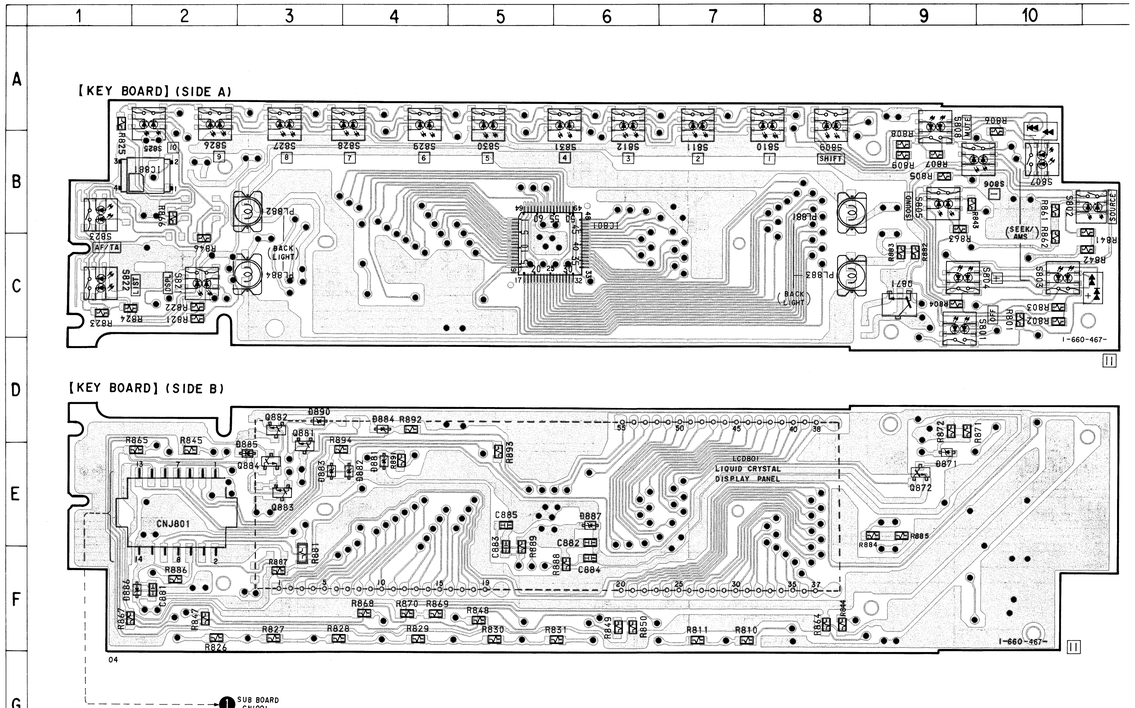
Q8C2 SWITCH
Q8C3 SWITCH
Q8C4 SWITCH
Q8C5 SWITCH
Q8C6 SWITCH
Q8C7 SWITCH
Q8C8 SWITCH
Q8C9 SWITCH
Q8CA SWITCH
Q8CB SWITCH
Q8CC SWITCH
Q8CD SWITCH
Q

6-5. PRINTED WIRING BOARD—PANEL SECTION—

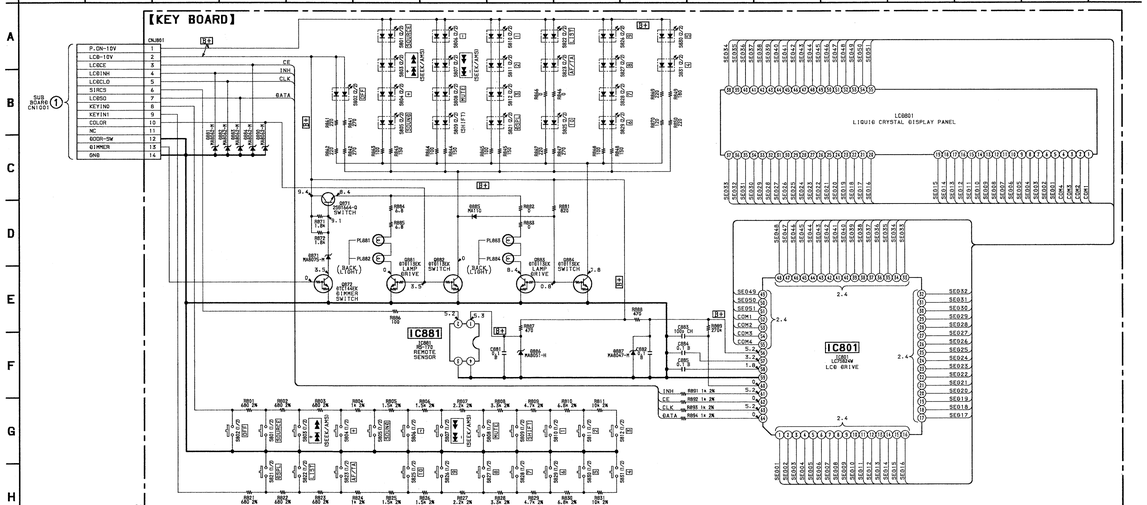
• Semiconductor Location

Ref. No.	Location
D871	E-9
D881	E-4
D882	E-4
D883	E-3
D884	D-4
D885	E-3
D886	F-2
D887	E-6
D890	D-3
IC801	C-6
IC881	B-2
Q871	C-9
Q872	E-9
Q881	D-3
Q882	D-3
Q883	E-3
Q884	E-3

Note :
- ● : Through hole.
- ▩ : Pattern on the side which is seen. (The other layer's patterns are not indicated.)



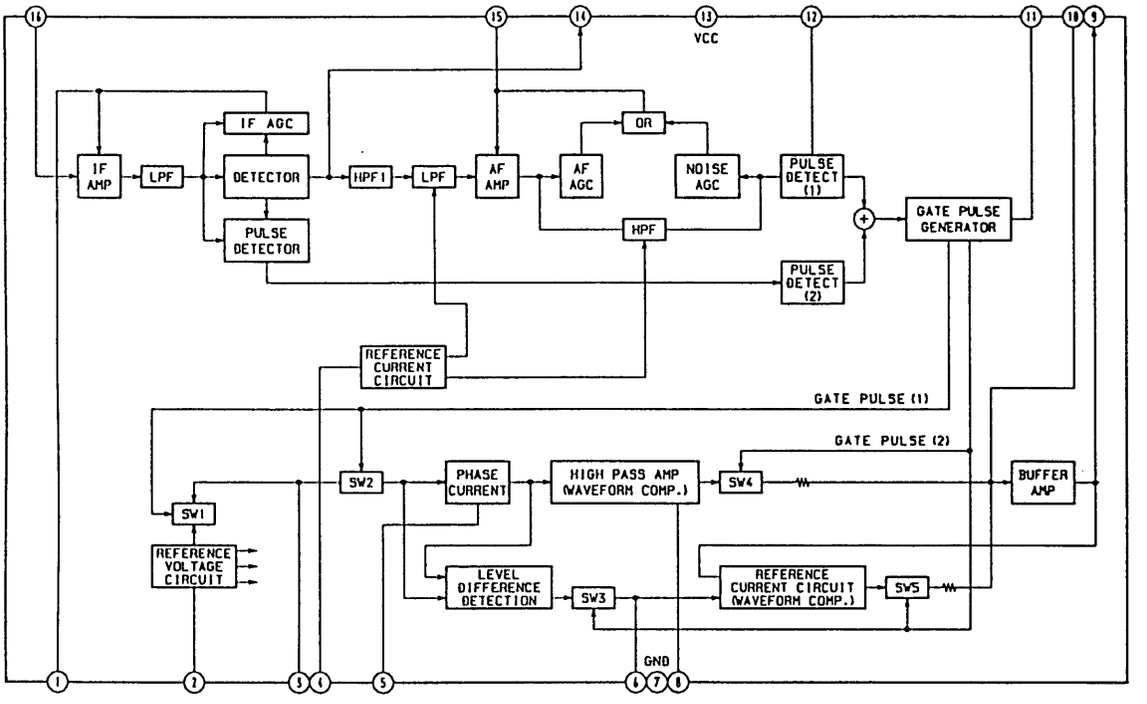
6-6. SCHEMATIC DIAGRAM—PANEL SECTION—



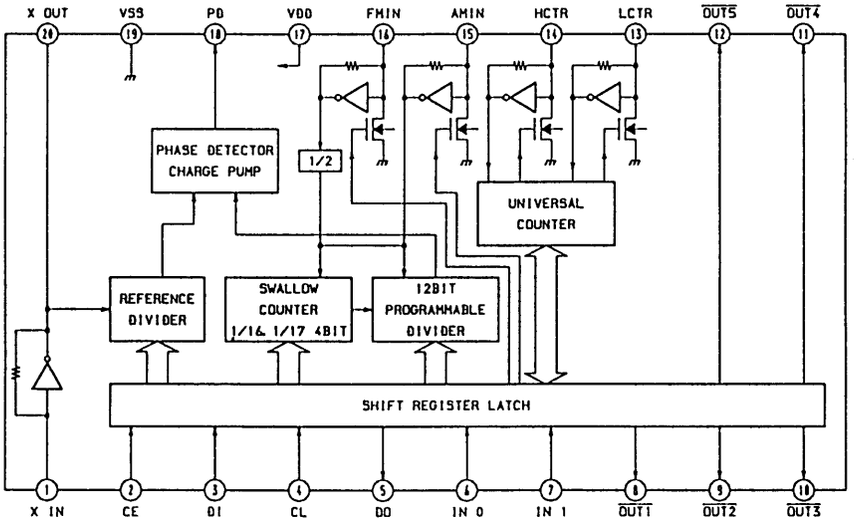
Note :
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- B+ : B+ Line
- Power voltage is dc 14.4V and fed with regulated dc power supply from BATT and ACC terminals.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

• **IC Block Diagrams**

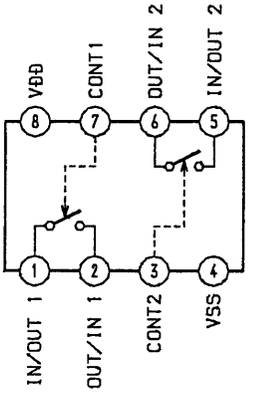
IC11 HA12181FP



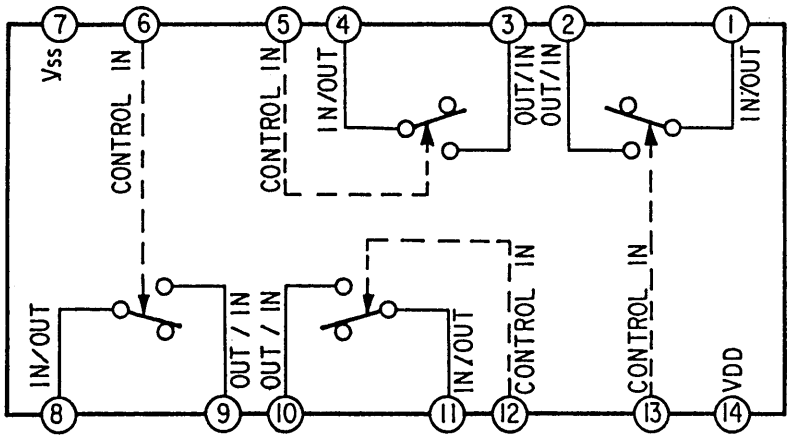
IC31 LC7216M



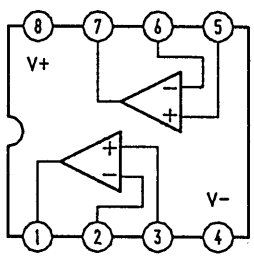
IC51 TC4W66F



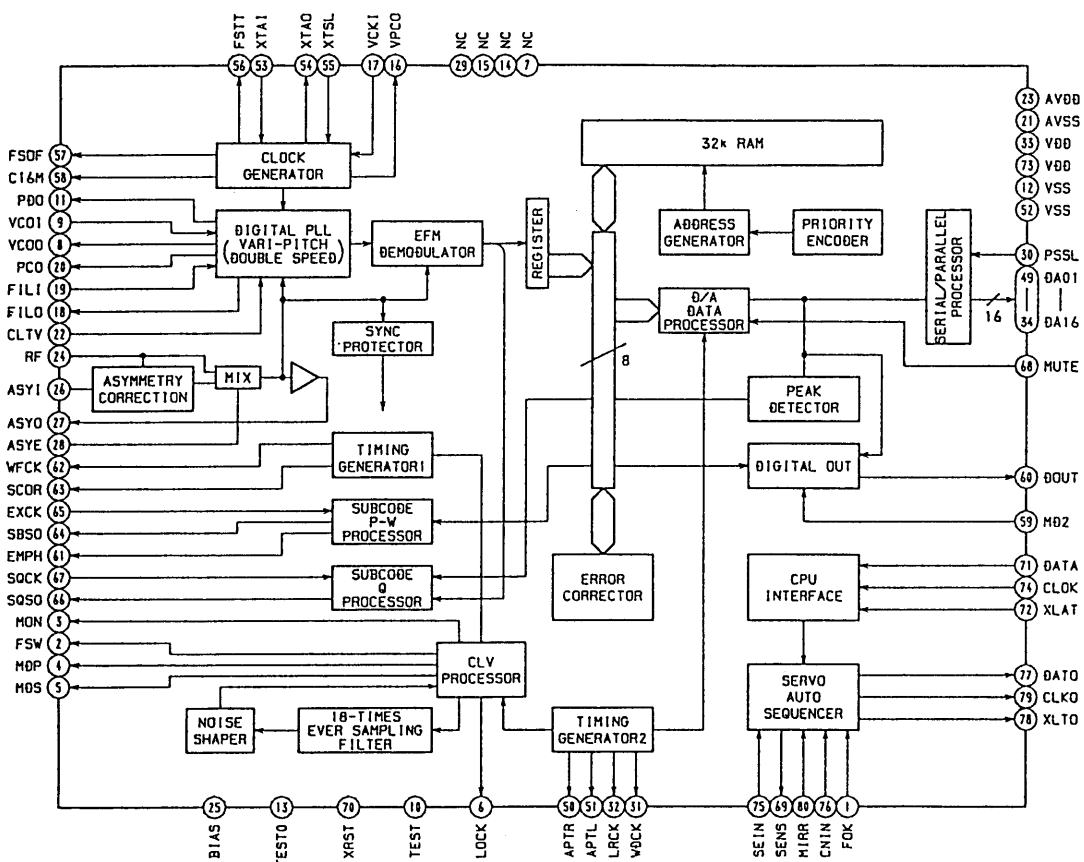
IC301 NJU4066BV



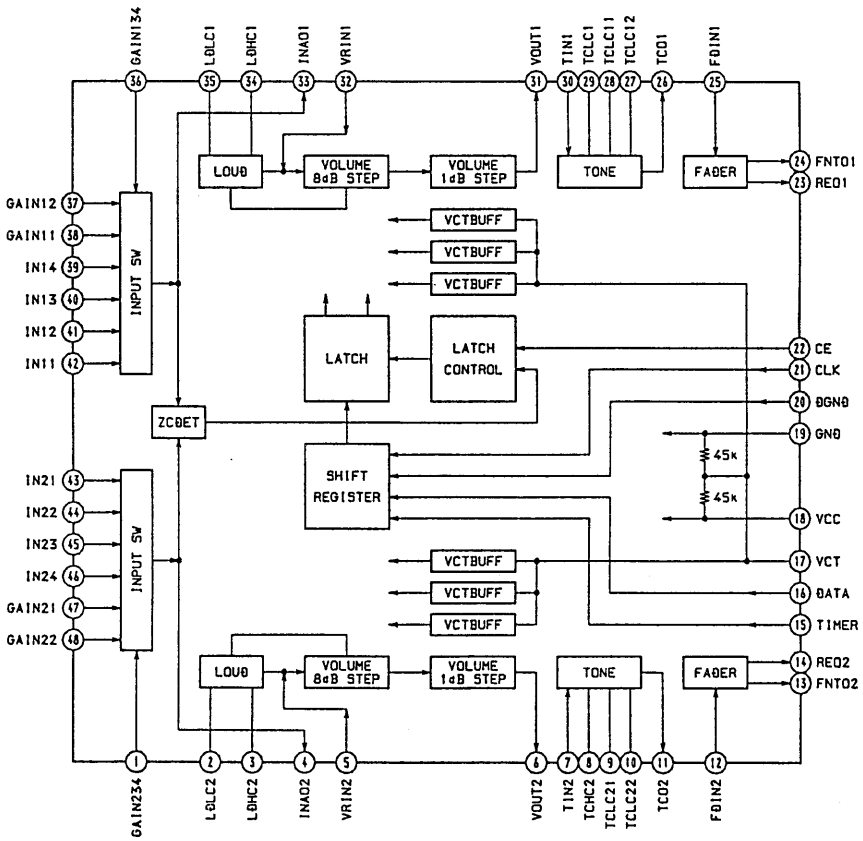
IC302 NJM4558E-D
IC361, 371 NJM4580E-D



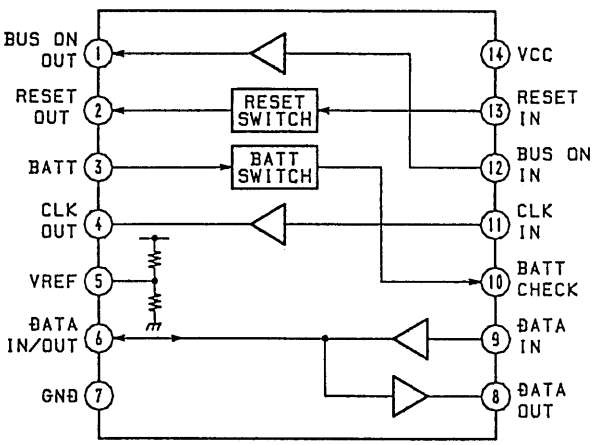
IC321 CXA2510Q



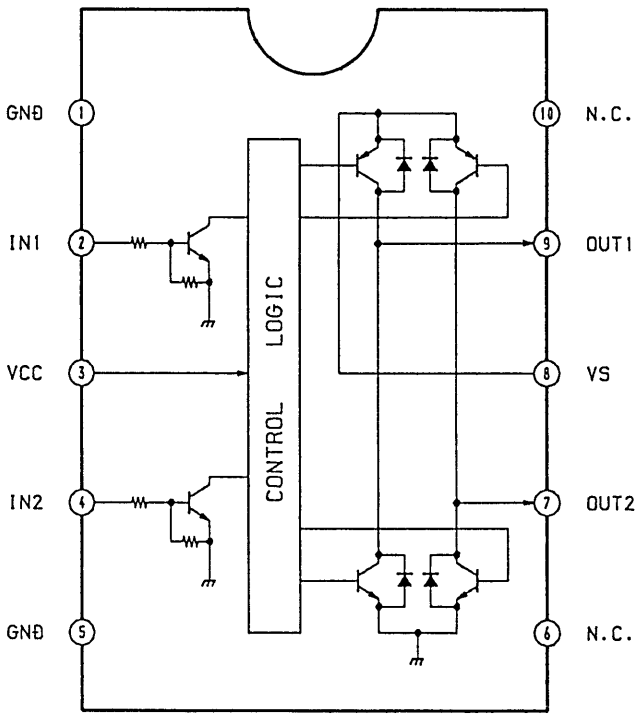
IC351 CXA1946AQ



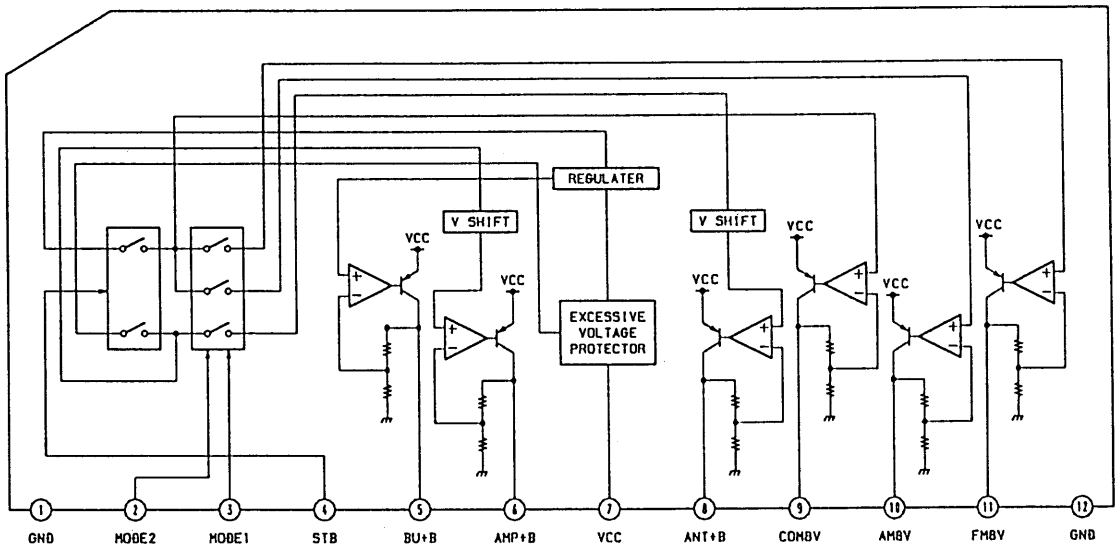
IC551 MM1175XFF



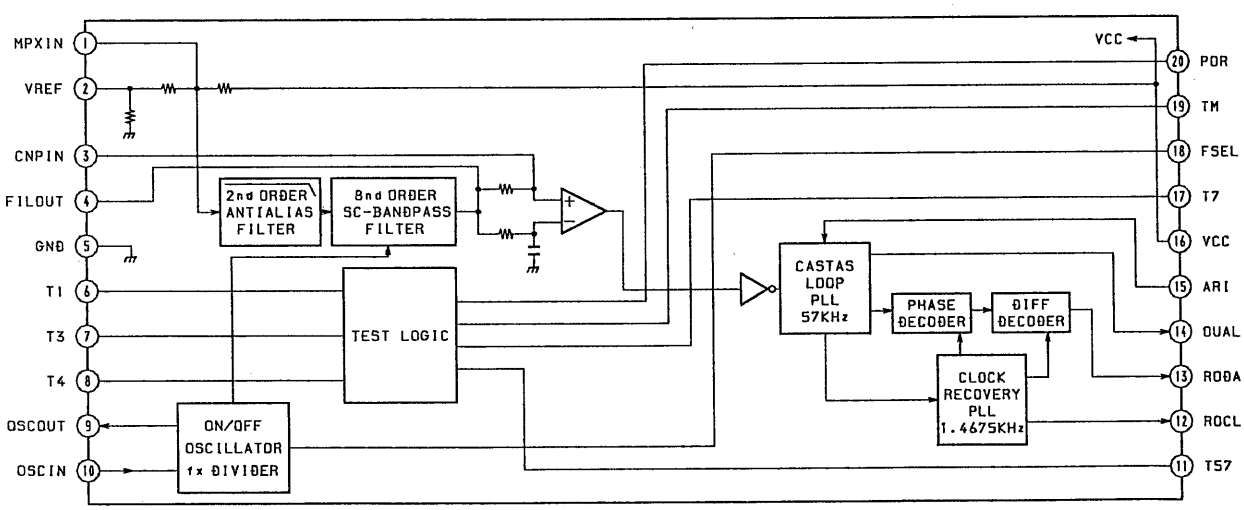
IC651 LB1638M



IC601 BA3918-V2



IC771 TDA7330BD

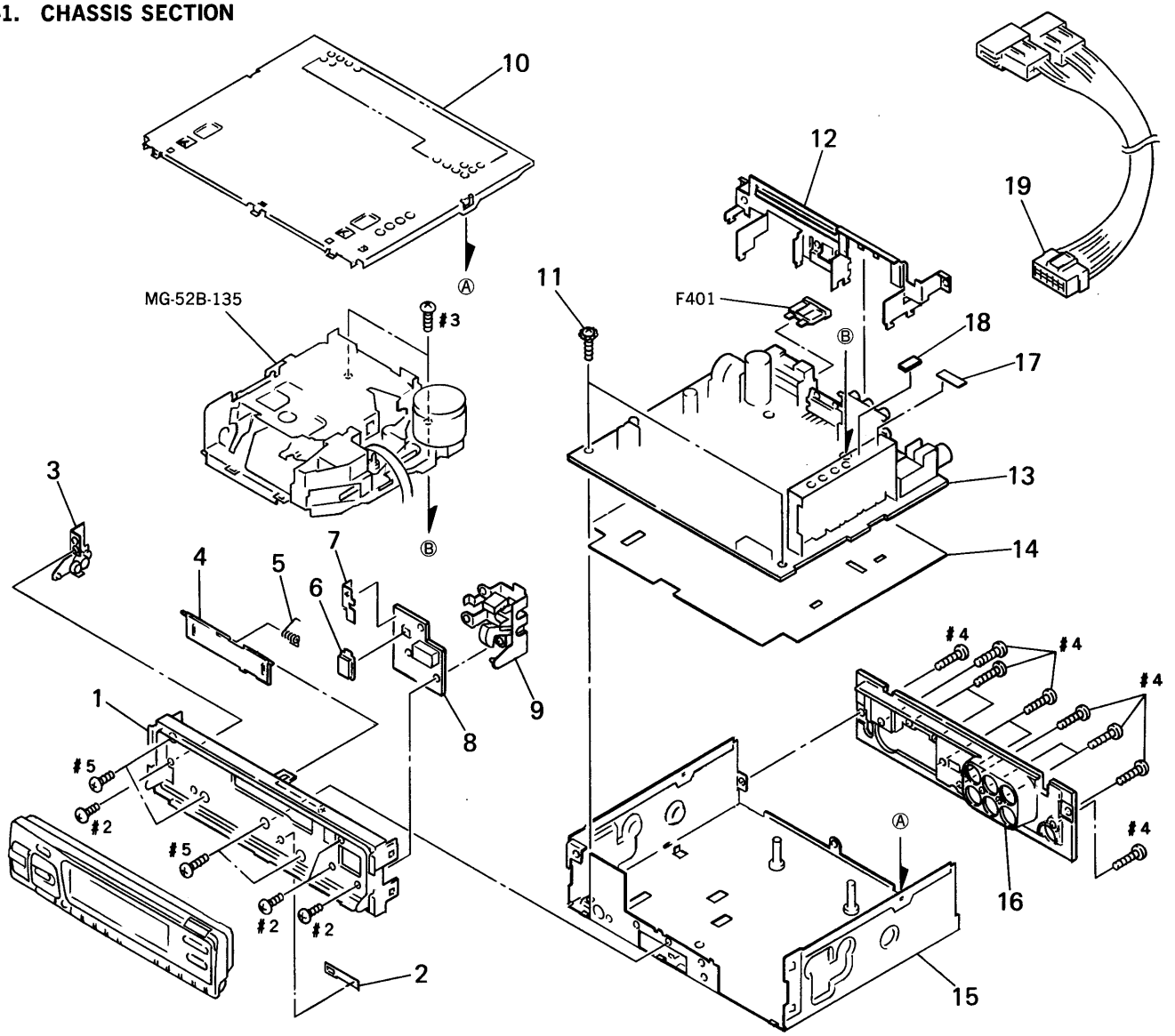


SECTION 7
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  G : German model

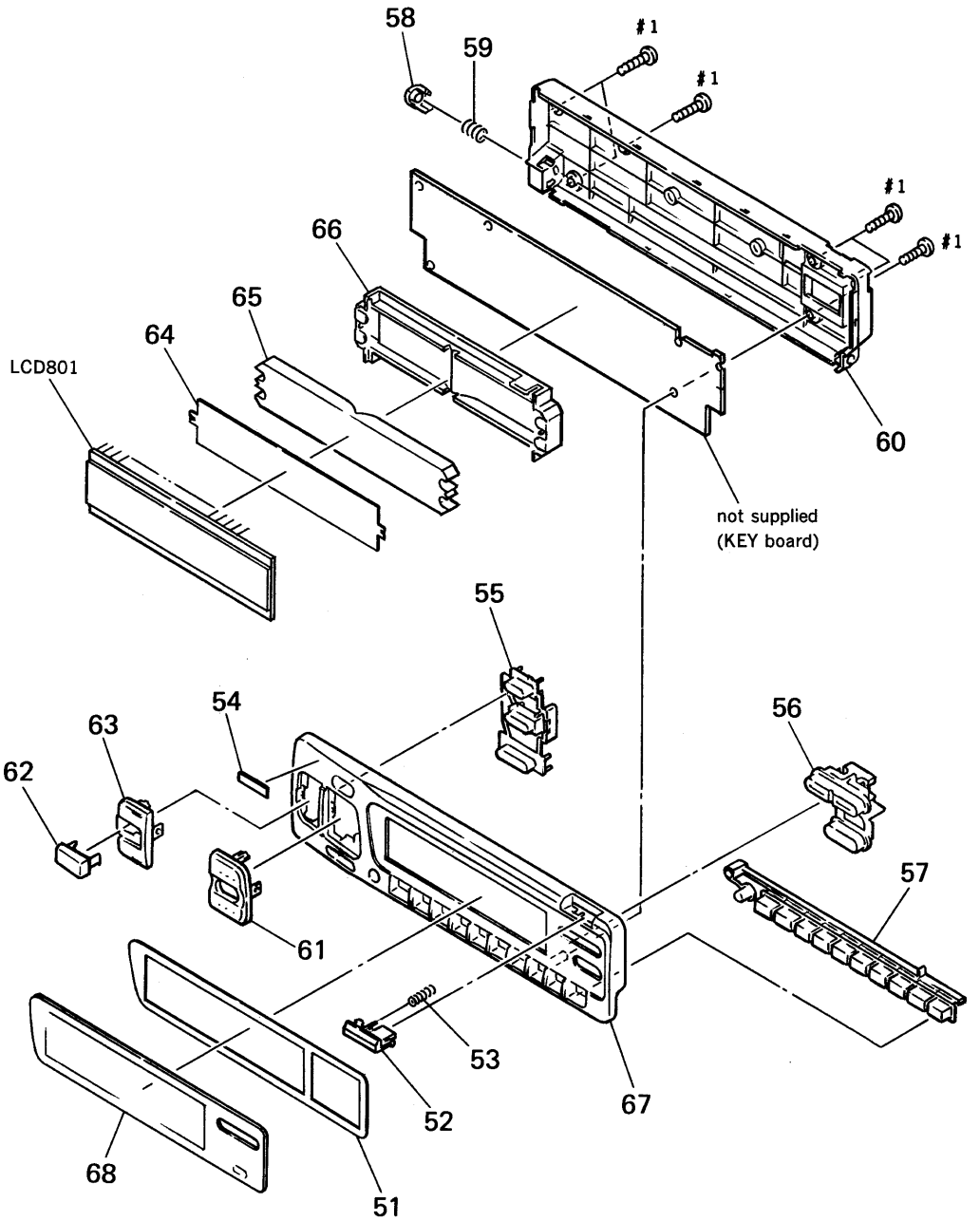
7-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	3-932-208-11	PANEL, SUB	
2	X-3371-545-1	SPRING (SWITCH) ASSY	
3	A-3291-624-A	SHAFT ASSY	
4	3-932-205-41	DOOR, CASSETTE	
5	3-913-076-01	SPRING (C DOOR), TORSION	
6	3-932-223-01	BUTTON (EJECT)	
7	3-932-224-11	PLATE (C DOOR), LIGHT GUIDE	
* 8	1-660-465-11	SUB BOARD	
9	X-3371-543-1	LOCK (SHAFT) ASSY	
* 10	X-3371-546-1	COVER ASSY	
11	3-915-923-01	SCREW, GROUND POINT	

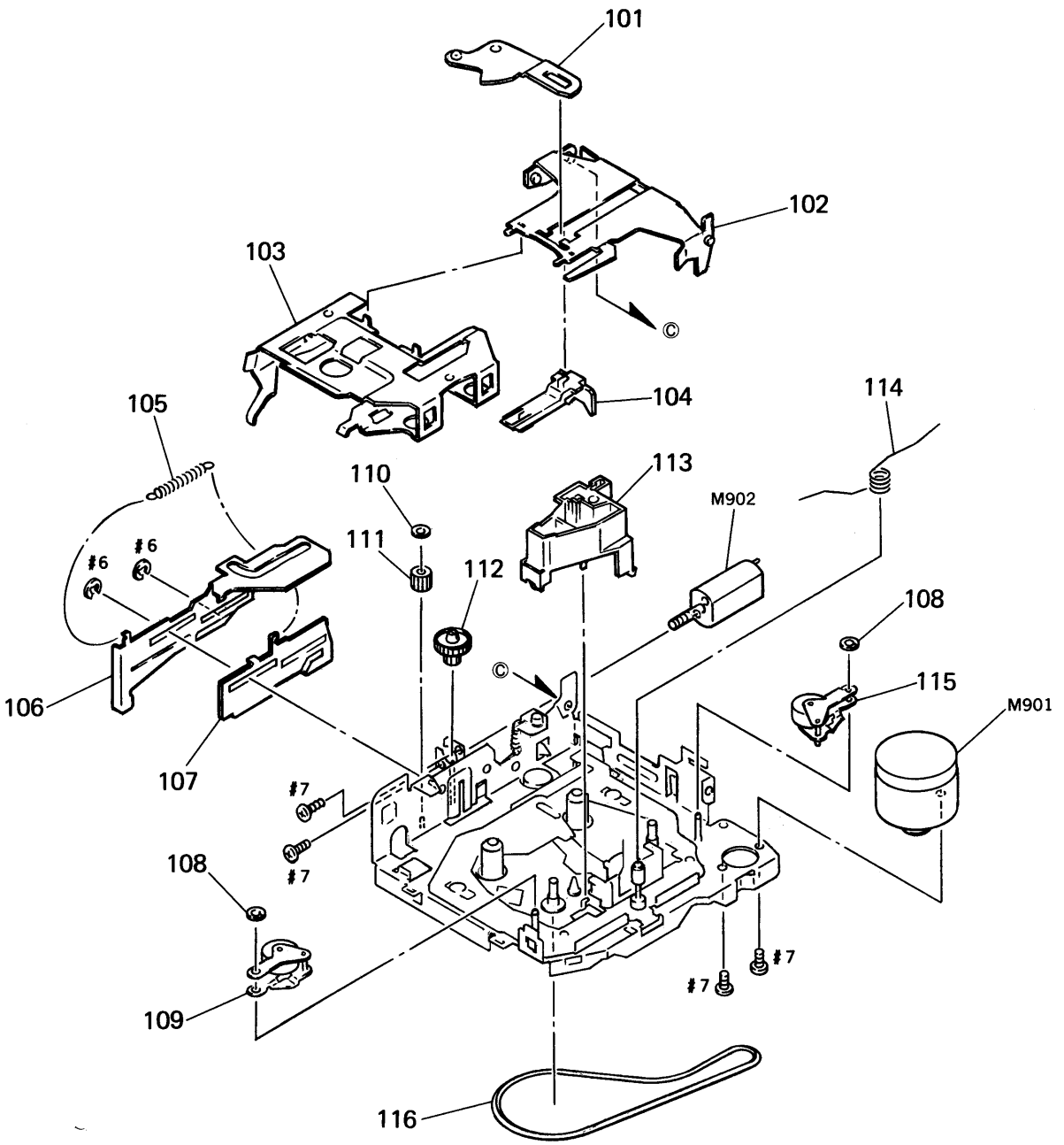
Ref. No.	Part No.	Description	Remark
* 12	3-932-212-01	BRACKET (IC)	
* 13	A-3309-118-A	MAIN BOARD, COMPLETE (G)	
* 13	A-3309-119-A	MAIN BOARD, COMPLETE (AEP, UK)	
* 14	3-932-206-11	INSULATOR	
* 15	X-3371-542-1	CHASSIS ASSY	
* 16	3-932-210-01	HEAT SINK	
* 17	3-355-209-01	PLATE (B), GROUND	
18	9-911-840-XX	CUSHION (U)	
19	1-776-527-11	CORD (WITH CONNECTOR) (ISO)	
F401	1-532-982-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	

7-2. FRONT PANEL SECTION



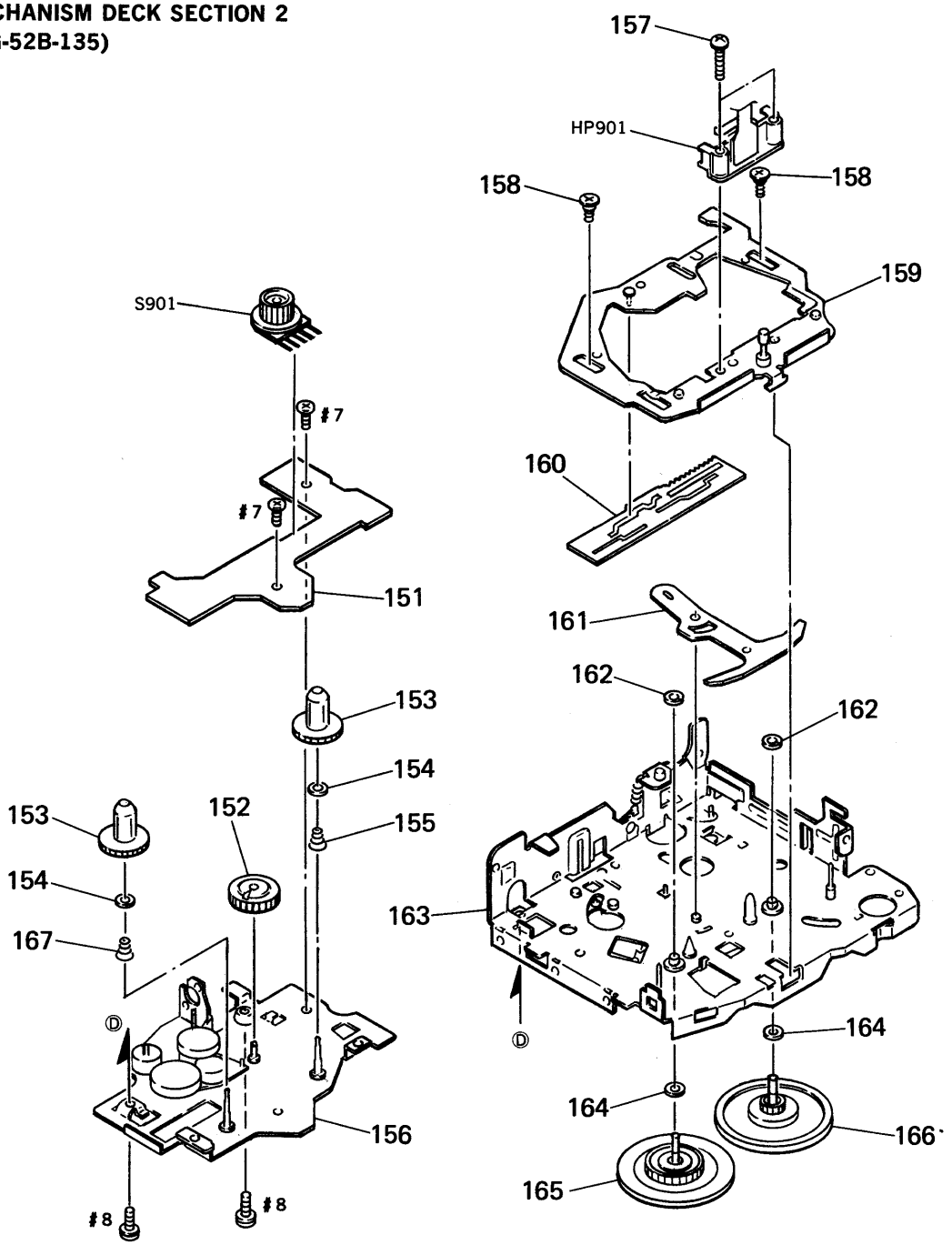
Ref. No.	Part No.	Description	Remark
51	3-934-279-01	SHEET (LCD), ADHESIVE	
52	3-932-219-01	BUTTON (OPEN)	
53	3-932-225-01	SPRING (OPEN)	
54	3-904-194-01	EMBLEM (NO. 2.5), SONY	
55	3-932-216-01	BUTTON (O.S.M)	
56	3-932-243-01	BUTTON (D/L A)	
57	3-932-217-01	BUTTON (1-10)	
58	3-932-239-01	BEARING (RELEASE)	
59	3-932-240-01	SPRING (RELEASE)	
60	3-932-207-01	PANEL, FRONT BACK	
61	3-932-215-01	BUTTON (+.-)	
62	3-932-214-01	BUTTON (SOURCE)	
63	3-932-213-01	BUTTON (S/A)	
* 64	3-932-221-01	SHEET (REFLECTOR)	
* 65	3-932-220-01	PLATE (LCD), LIGHT GUIDE	
* 66	3-932-222-01	HOLDER (LCD)	
67	3-932-241-21	PANEL, FRONT	
68	3-932-242-21	PLATE (LCD), INDICATION	
LCD801	1-801-193-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. MECHANISM DECK SECTION 1 (MG-52B-135)



Ref. No.	Part No.	Description	Remark
* 101	3-933-347-01	ARM (SUCTION)	
102	3-933-340-01	HANGER	
103	3-928-671-01	HOUSING	
104	3-933-346-01	CATCHER	
105	3-933-341-01	SPRING (LEVER LDG), TENSION	
106	3-928-674-01	LEVER (LDG-B)	
* 107	3-928-673-01	LEVER (LDG-A)	
108	3-321-813-01	WASHER, COTTER POLYETHYLENE	
109	X-3370-977-1	LEVER (PINCH R) ASSY	
110	3-341-753-11	WASHER, POLYETHYLENE	
111	3-933-335-01	GEAR (LDG-FT)	
112	3-928-667-01	GEAR (LDG-A)	
113	3-933-344-01	GUIDE (C)	
114	3-928-670-01	SPRING (PINCH PRESS)	
115	X-3370-976-1	LEVER (PINCH F) ASSY	
116	3-928-675-01	BELT (52)	
M901	A-3291-644-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
M902	A-3291-643-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)	

7-4. MECHANISM DECK SECTION 2 (MG-52B-135)



Ref. No.	Part No.	Description	Remark
151	1-660-169-11	REEL SENSOR BOARD	
152	3-933-333-01	GEAR (LDG-E)	
153	3-933-345-01	GEAR, REEL	
154	3-701-437-01	POLY-SLIDER (A)	
155	3-933-339-01	SPRING (B-T-F), CONE COIL	
156	X-3371-710-1	CHASSIS (S) ASSY	
157	3-927-100-01	SCREW (+PS 2X10), SPECIAL	
158	3-933-338-01	SCREW (HP), STEP	
* 159	X-3371-712-1	PLATE SUB ASSY, HEAD	
160	3-928-668-01	LEVER (MODE)	

Ref. No.	Part No.	Description	Remark
161	3-928-669-01	LEVER (PINCH SELECTION)	
162	3-364-151-01	WASHER	
* 163	X-3371-705-1	CHASSIS (M) ASSY (B)	
164	3-701-437-21	WASHER	
165	A-3291-646-A	CLUTCH (FR) ASSY	
166	3-930-932-01	FLYWHEEL (F) (SEF)	
167	3-933-337-01	SPRING (B-T-R), CONE COIL	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)	

SECTION 8
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

- Abbreviation
  G : German model

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		*********			
*	3-932-220-01	PLATE (LCD), LIGHT GUIDE			
*	3-932-221-01	SHEET (REFLECTOR)			
*	3-932-222-01	HOLDER (LCD)			
		< CAPACITOR >			
C881	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	
C882	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	
C883	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C884	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	
C885	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V	
		< CONNECTOR >			
CNJ801	1-774-945-11	PLUG, CONNECTOR 14P			
		< DIODE >			
D871	8-719-422-76	DIODE	MA8075-M		
D881	8-719-422-64	DIODE	MA8062-M		
D882	8-719-422-64	DIODE	MA8062-M		
D883	8-719-422-64	DIODE	MA8062-M		
D884	8-719-422-64	DIODE	MA8062-M		
D885	8-719-404-46	DIODE	MA110		
D886	8-719-422-43	DIODE	MA8051-H		
D887	8-719-422-31	DIODE	MA8047-M		
D890	8-719-422-64	DIODE	MA8062-M		
		< IC >			
IC801	8-759-365-90	IC	LC75824W		
IC881	8-749-012-25	IC	RS-170-TU		
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-801-193-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL881	1-517-533-11	LAMP, PILOT			
PL882	1-517-533-11	LAMP, PILOT			
PL883	1-517-533-21	LAMP, PILOT			
PL884	1-517-533-21	LAMP, PILOT			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q871	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q872	8-729-027-59	TRANSISTOR	DTC144EKA-T146		
Q881	8-729-904-66	TRANSISTOR	DTD113EK		
Q882	8-729-904-66	TRANSISTOR	DTD113EK		
Q883	8-729-904-66	TRANSISTOR	DTD113EK		
Q884	8-729-904-66	TRANSISTOR	DTD113EK		
		< RESISTOR >			
R801-803					
	1-216-647-11	METAL CHIP	680	0.5% 1/10W	
R804	1-208-437-41	METAL GLAZE	1K	2% 1/10W	
R805	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W	
R806	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W	
R807	1-208-445-41	METAL GLAZE	2.2K	2% 1/10W	
R808	1-208-449-41	METAL GLAZE	3.3K	2% 1/10W	
R809	1-208-453-41	METAL GLAZE	4.7K	2% 1/10W	
R810	1-216-671-11	METAL CHIP	6.8K	0.5% 1/10W	
R811	1-208-462-41	METAL GLAZE	10K	2% 1/10W	
R821-823					
	1-216-647-11	METAL CHIP	680	0.5% 1/10W	
R824	1-208-437-41	METAL GLAZE	1K	2% 1/10W	
R825	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W	
R826	1-216-655-11	METAL CHIP	1.5K	0.5% 1/10W	
R827	1-208-445-41	METAL GLAZE	2.2K	2% 1/10W	
R828	1-208-449-41	METAL GLAZE	3.3K	2% 1/10W	
R829	1-208-453-41	METAL GLAZE	4.7K	2% 1/10W	
R830	1-216-671-11	METAL CHIP	6.8K	0.5% 1/10W	
R831	1-208-462-41	METAL GLAZE	10K	2% 1/10W	
R841	1-216-035-00	METAL GLAZE	270	5% 1/10W	
R842	1-216-035-00	METAL GLAZE	270	5% 1/10W	
R843	1-216-631-11	METAL CHIP	150	0.5% 1/10W	
R844	1-216-029-00	METAL CHIP	150	5% 1/10W	
R845	1-216-029-00	METAL CHIP	150	5% 1/10W	
R846	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R847	1-216-035-00	METAL CHIP	270	5% 1/10W	
R848	1-216-029-00	METAL CHIP	150	5% 1/10W	
R849	1-216-031-00	METAL CHIP	180	5% 1/10W	
R850	1-216-033-00	METAL CHIP	220	5% 1/10W	

KEY **MAIN**

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description			Remark
R861	1-216-635-11	METAL GLAZE	220	0.5%	1/10W
R862	1-216-635-11	METAL GLAZE	220	0.5%	1/10W
R863	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R864-865					
	1-216-025-00	METAL CHIP	100	5%	1/10W
R866	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R867	1-216-033-00	METAL CHIP	220	5%	1/10W
R868	1-216-025-00	METAL CHIP	100	5%	1/10W
R869	1-216-033-00	METAL CHIP	220	5%	1/10W
R870	1-216-027-00	METAL CHIP	120	5%	1/10W
R871	1-216-055-00	METAL GLAZE	1.8K	0.5%	1/10W
R872	1-216-055-00	METAL CHIP	1.8K	0.5%	1/10W
R881	1-216-196-00	METAL GLAZE	820	5%	1/8W
R882	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R883	1-216-295-00	CONDUCTOR, CHIP		(2012)	
R884	1-216-311-00	METAL CHIP	6.8	5%	1/10W
R885	1-216-311-00	METAL CHIP	6.8	5%	1/10W
R886	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R887	1-216-041-11	METAL GLAZE	470	5%	1/10W
R888	1-216-041-11	METAL GLAZE	470	5%	1/10W
R889	1-216-107-00	METAL CHIP	270K	5%	1/10W
R891-894					
	1-208-453-41	METAL GLAZE	1K	2%	1/10W
		< SWITCH >			
S801	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(SOURCE)
S802	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(OFF)
S803	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(+ ⏭ ⏩ (SEEK/AMS))
S804	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(+)
S805	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(SOUND)
S806	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(-)
S807	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(- ⏮ ⏪ (SEEK/AMS))
S808	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(MUTE)
S809	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(SHIFT)
S810	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(1)
S811	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(2)
S812	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(3)
S821	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(DSPL)
S822	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(LIST)
S823	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(AF/TA)
S825	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(10)
S826	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(9)
S827	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(8)
S828	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(7)
S829	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(6)
S830	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(5)
S831	1-762-620-11	SWITCH, KEY BOARD (WITH LED)			(4)

****

* A-3309-118-A MAIN BOARD, COMPLETE (G)
* A-3309-119-A MAIN BOARD, COMPLETE (AEP, UK)
****

* 3-932-212-01 BRACKET (IC)

< BUZZER >

BZ551 1-504-920-11 BUZZER

< CAPACITOR >

C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-124-234-00	ELECT	22uF	20%	16V
C4	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C5	1-124-234-00	ELECT	22uF	20%	16V
C6	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C7	1-124-234-00	ELECT	22uF	20%	16V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-126-163-11	ELECT	4.7uF	20%	50V
C12	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C13-15					
	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C16	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C17	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C18	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C19	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C20	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C21	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C22	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C23	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C24	1-124-234-00	ELECT	22uF	20%	16V
C31	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C33	1-126-157-11	ELECT	10uF	20%	16V
C34	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C36	1-164-346-11	CERAMIC CHIP	1uF		16V
C37	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C38	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C39	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C40	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C41	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C42	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C43	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C51	1-126-157-11	ELECT	10uF	20%	16V
C52	1-164-222-11	CERAMIC CHIP	0.22uF		25V

SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description			Remark
C53	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C54	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C55	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C56	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C57	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C58	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C91	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C93	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C96	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C97	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C98	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C100	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C101	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C102	1-126-163-11	ELECT	4.7uF	20%	50V
C103	1-126-163-11	ELECT	4.7uF	20%	50V
C104	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C105	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C111	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C121	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C122	1-130-469-00	MYLAR	680PF	5%	50V
C123	1-130-469-00	MYLAR	680PF	5%	50V
C124	1-136-153-00	FILM	0.01uF	5%	50V
C125	1-124-257-00	ELECT	2.2uF	20%	50V
C126	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C127	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C128	1-126-163-11	ELECT	4.7uF	20%	50V
C130	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C131	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C132	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C133	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C151-153					
	1-126-163-11	ELECT	4.7uF	20%	50V
C156	1-124-234-00	ELECT	22uF	20%	16V
C157	1-136-165-00	FILM	0.1uF	5%	50V
C158	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C159	1-126-157-11	ELECT	10uF	20%	16V
C160	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C161	1-126-157-11	ELECT	10uF	20%	16V
C162	1-136-169-00	FILM	0.22uF	5%	50V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-126-163-11	ELECT	4.7uF	20%	50V
C175	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C176	1-136-165-00	FILM	0.1uF	5%	50V
C177	1-136-165-00	FILM	0.1uF	5%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-126-163-11	ELECT	4.7uF	20%	50V
C185	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C186	1-136-165-00	FILM	0.1uF	5%	50V
C187	1-136-165-00	FILM	0.1uF	5%	50V

Ref. No.	Part No.	Description			Remark
C191-193					
	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C200	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C201	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C202	1-126-163-11	ELECT	4.7uF	20%	50V
C203	1-126-163-11	ELECT	4.7uF	20%	50V
C204	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C205	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C221	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C222	1-130-469-00	MYLAR	680PF	5%	50V
C223	1-130-469-00	MYLAR	680PF	5%	50V
C224	1-136-153-00	FILM	0.01uF	5%	50V
C225	1-124-257-00	ELECT	2.2uF	20%	50V
C226	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C227	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C228	1-126-163-11	ELECT	4.7uF	20%	50V
C230	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C231-233					
	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C251-253					
	1-126-163-11	ELECT	4.7uF	20%	50V
C256	1-124-234-00	ELECT	22uF	20%	16V
C257	1-136-165-00	FILM	0.1uF	5%	50V
C258	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C259	1-126-157-11	ELECT	10uF	20%	16V
C260	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C261	1-126-157-11	ELECT	10uF	20%	16V
C262	1-136-169-00	FILM	0.22uF	5%	50V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-126-163-11	ELECT	4.7uF	20%	50V
C275	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C276	1-136-165-00	FILM	0.1uF	5%	50V
C277	1-136-165-00	FILM	0.1uF	5%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-126-163-11	ELECT	4.7uF	20%	50V
C285	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C286	1-136-165-00	FILM	0.1uF	5%	50V
C287	1-136-165-00	FILM	0.1uF	5%	50V
C291-293					
	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C302	1-126-157-11	ELECT	10uF	20%	16V
C319	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C320	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C321	1-124-234-00	ELECT	22uF	20%	16V
C322	1-124-584-00	ELECT	100uF	20%	10V
C323	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C324	1-124-465-00	ELECT	0.47uF	20%	50V
C325	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C326-329					
	1-164-222-11	CERAMIC CHIP	0.22uF		25V

MAIN

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description			Remark
C330	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C331	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C332	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C351	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C352	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C353	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C354	1-124-234-00	ELECT	22uF	20%	16V
C355	1-124-584-00	ELECT	100uF	20%	10V
C360	1-126-157-11	ELECT	10uF	20%	16V
C361	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C363	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C370	1-126-157-11	ELECT	10uF	20%	16V
C371	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C373	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C381	1-126-160-11	ELECT	1uF	20%	50V
C382	1-124-234-00	ELECT	22uF	20%	16V
C402	1-126-157-11	ELECT	10uF	20%	16V
C403	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C404	1-126-157-11	ELECT	10uF	20%	16V
C405	1-126-157-11	ELECT	10uF	20%	16V
C451	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C452	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C453	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C454-457					
	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C471	1-111-233-11	ELECT	5600uF	20%	16V
C472	1-136-173-00	FILM	0.47uF	5%	50V
C473	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C474	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C475	1-163-077-00	CERAMIC CHIP	0.1uF	5%	50V
C476	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C501	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C507	1-164-232-11	CERAMIC CHIP	0.01uF	10%	100V
C508	1-164-232-11	CERAMIC CHIP	0.01uF	10%	100V
C531	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C533	1-125-705-11	CAPACITOR	0.22F		5.5V
C534	1-126-924-11	ELECT	330uF	20%	6.3V
C535	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C536	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C551	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C552	1-124-257-00	ELECT	2.2uF	20%	50V
C553	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C554	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C555	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C557	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C558	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C559	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C601	1-126-157-11	ELECT	10uF	20%	16V
C602	1-124-234-00	ELECT	22uF	20%	16V

Ref. No.	Part No.	Description			Remark
C603	1-126-157-11	ELECT	10uF	20%	16V
C605	1-124-589-11	ELECT	47uF	20%	16V
C606	1-124-589-11	ELECT	47uF	20%	16V
C607	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C617	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C618	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C621	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C622	1-124-257-00	ELECT	2.2uF	20%	50V
C651	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C652	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C653	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C654	1-126-157-11	ELECT	10uF	20%	16V
C655	1-124-234-00	ELECT	22uF	20%	16V
C656	1-126-934-11	ELECT	220uF	20%	16V
C661	1-124-234-00	ELECT	22uF	20%	16V
C662	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C663	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C664	1-124-584-00	ELECT	100uF	20%	10V
C703	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C704	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C705	1-124-234-00	ELECT	22uF	20%	16V
C706	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C707	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C751	1-124-257-00	ELECT	2.2uF	20%	50V
C754	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C755	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C757	1-126-160-11	ELECT	1uF	20%	50V
C771	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C772	1-126-157-11	ELECT	10uF	20%	16V
C773	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C774	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C775	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C776	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C777	1-124-257-00	ELECT	2.2uF	20%	50V
C778	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C791	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C792	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C799	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C901	1-164-232-11	CERAMIC CHIP	0.01uF		50V

< CONNECTOR >

CNJ551	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)
CNP321	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P
* CNP331	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P
CNP471	1-774-701-11	PIN, CONNECTOR 16P
CNP851	1-770-409-11	CONNECTOR, BOARD TO BOARD 16P

SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description	Remark
		< DISCHARGE GAP >	
CP1	1-519-504-11	GAP, DISCHARGE	
		< DIODE >	
D1	8-719-991-75	DIODE RB425D	
D31	8-719-109-88	DIODE RD5.6ES-B1	
D51	8-719-110-14	DIODE RD9.1ES-B3	
D321	8-719-404-46	DIODE MA110	
D371	8-719-422-12	DIODE MA8039	
D372	8-719-404-46	DIODE MA110	
D401	8-719-404-46	DIODE MA110	
D402	8-719-404-46	DIODE MA110	
D403	8-719-974-59	DIODE 1SR139-100	
D404	8-719-974-59	DIODE 1SR139-100	
D405	8-719-404-46	DIODE MA110	
D471	8-719-049-38	DIODE 1N5404TU	
D472	8-719-422-64	DIODE MA8062-M	
D473	8-719-017-98	DIODE MA8200-TX	
D501	8-719-422-64	DIODE MA8062-M	
D502	8-719-422-64	DIODE MA8062-M	
D531	8-719-911-19	DIODE 1SS119-25	
D532	8-719-041-79	DIODE MA721WA-TX	
D533	8-719-109-93	DIODE RD6.2ESB2	
D534	8-719-979-34	DIODE DAP236K-T146	
D551	8-719-057-80	DIODE MA8160-M-TX	
D552	8-719-420-14	DIODE MA8082-M	
D553	8-719-109-93	DIODE RD6.2ESB2	
D554	8-719-109-97	DIODE RD6.8ES-B2	
D555	8-719-109-93	DIODE RD6.2ESB2	
D556	8-719-109-93	DIODE RD6.2ESB2	
D557	8-719-109-93	DIODE RD6.2ESB2	
D558	8-719-109-93	DIODE RD6.2ESB2	
D559	8-719-911-19	DIODE 1SS119-25	
D565	8-719-404-46	DIODE MA110	
D575	8-719-404-46	DIODE MA110	
D591	8-719-057-80	DIODE MA8160-M-TX	
D592	8-719-057-80	DIODE MA8160-M-TX	
D594	8-719-422-61	DIODE MA8062L	
D595	8-719-422-61	DIODE MA8062L	
D596	8-719-422-61	DIODE MA8062L	
D597	8-719-422-61	DIODE MA8062L	
D598	8-719-422-61	DIODE MA8062L	
D621	8-719-923-74	DIODE MTZJ-T-77-11A	
D651	8-719-110-14	DIODE RD9.1ES-B3	
D652	8-719-911-19	DIODE 1SS119-25	
D661	8-719-110-17	DIODE RD10ESB2	
D701	8-719-979-34	DIODE DAP236K-T146	
D702	8-719-404-46	DIODE MA110	
D751	8-719-404-46	DIODE MA110	
		< FUSE >	
F401	1-532-982-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
		< IC >	
IC11	8-759-367-11	IC HA12181FP-EL	
IC31	8-759-823-81	IC LC7216M	
IC51	8-759-242-66	IC TC4W66F	
IC301	8-759-075-69	IC TC4066BFS-EL	
IC302	8-759-331-72	IC NJM4558E-D(TE2)	
IC321	8-752-075-58	IC CXA2510Q-T4	
IC351	8-752-075-48	IC CXA1946AQ-T6	
IC361	8-759-711-85	IC NJM4580E-D	
IC371	8-759-711-85	IC NJM4580E-D	
IC401	8-759-369-41	IC HA13155	
IC531	8-759-363-81	IC XC61AN4002PR	
IC551	8-759-096-16	IC MM1175XFF	
IC601	8-759-347-49	IC BA3918-V2	
IC651	8-759-823-87	IC LB1638M	
IC701	8-759-395-96	IC uPD78056GC-146-3B9	
IC751	8-759-379-99	IC MN1883220S4A1	
IC771	8-759-163-63	IC TDA7330BD-013TR	
		< JACK >	
J1	1-770-279-11	JACK, ANTENNA (ISO) (ANTENNA)	
J451	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, LINE OUT FRONT/REAR)	
J551	1-566-822-41	JACK (REMOTE IN)	
		< RESISTOR >	
JC101	1-216-841-11	METAL CHIP 47K 5% 1/16W	
JC201	1-216-841-11	METAL CHIP 47K 5% 1/16W	
		< COIL >	
L31	1-410-501-11	INDUCTOR 2.2uH	
L32	1-410-509-11	INDUCTOR 10uH	
L471	1-411-669-11	COIL, CHOKE	
L701	1-410-509-11	INDUCTOR 10uH	
L751	1-410-509-11	INDUCTOR 10uH	
L771	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q32	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q51	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q52	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q53	8-729-900-53	TRANSISTOR DTC114EK	

MAIN

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description	Remark
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q171	8-729-920-21	TRANSISTOR DTC314TKH04	
Q181	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q271	8-729-920-21	TRANSISTOR DTC314TKH04	
Q281	8-729-920-21	TRANSISTOR DTC314TKH04	
Q301	8-729-920-21	TRANSISTOR DTC314TKH04	
Q331	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q332	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q333	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q371	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q372	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q373	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q410	8-729-027-24	TRANSISTOR DTA114TKA-T146	
Q531	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q532	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q551	8-729-900-53	TRANSISTOR DTC114EK	
Q552	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q553	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q554	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q555	8-729-900-53	TRANSISTOR DTC114EK	
Q565	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q621	8-729-900-53	TRANSISTOR DTC114EK	
Q622	8-729-900-53	TRANSISTOR DTC114EK	
Q623	8-729-030-51	TRANSISTOR 2SA1515S-R-TP	
Q624	8-729-030-18	TRANSISTOR 2SD2525	
Q625	8-729-030-18	TRANSISTOR 2SD2525	
Q626	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q651	8-729-030-18	TRANSISTOR 2SD2525	
Q652	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q653	8-729-106-60	TRANSISTOR 2SB1115A	
Q661	8-729-900-53	TRANSISTOR DTC114EK	
Q662	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q663	8-729-930-77	TRANSISTOR 2SD1919TL2-R	
Q701	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q702	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q703	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q771	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q772	8-729-027-31	TRANSISTOR DTA124EKA-T146	

< RESISTOR >

R1	1-216-037-00	METAL CHIP	330	5%	1/10W	
R2	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R3	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R6	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R7	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R8	1-216-041-00	METAL CHIP	470	5%	1/10W	
R9	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R10	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R11	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R12	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R13	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R14	1-216-107-00	METAL CHIP	270K	5%	1/10W	
R15	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R16	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R17	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R18	1-216-009-00	METAL CHIP	22	5%	1/10W	
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R31	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R32	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R33	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R34	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R35	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R37	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R51	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R52	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R53	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R54	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R55	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R56	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R57	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R100	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R101	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R102	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R103	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R104	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R106	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	(AEP, UK)
R106	1-216-295-00	CONDUCTOR, CHIP		(2012)	(G)	
R107	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W	(AEP, UK)
R121	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R122	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R123	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R124	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R125	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R126	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R127	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R128	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R151	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R152	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R154	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R171	1-216-033-00	METAL CHIP	220	5%	1/10W	
R172	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R173	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R174	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	

SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description			Remark
R176	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R177	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R181	1-216-033-00	METAL CHIP	220	5%	1/10W
R182	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R183	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R184	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R186	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R187	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R200	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R201	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R202	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W
R204	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R205	1-216-073-00	METAL CHIP	10K	5%	1/10W
R206	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (AEP, UK)
R206	1-216-295-00	CONDUCTOR, CHIP	(2012)		(G)
R207	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R208	1-216-073-00	METAL CHIP	10K	5%	1/10W (AEP, UK)
R221	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R222	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R223	1-216-109-00	METAL CHIP	330K	5%	1/10W
R224	1-216-077-00	METAL CHIP	15K	5%	1/10W
R225	1-216-079-00	METAL CHIP	18K	5%	1/10W
R227	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R251	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R252	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R254	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R271	1-216-033-00	METAL CHIP	220	5%	1/10W
R272	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R273	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R274	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R276	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R277	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R281	1-216-033-00	METAL CHIP	220	5%	1/10W
R282	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R283	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R284	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R286	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R287	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R301	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R302	1-216-073-00	METAL CHIP	10K	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R321	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R322	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R323	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R324-327	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R328	1-216-025-00	METAL GLAZE	100	5%	1/10W
R331	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R332	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R333	1-216-085-00	METAL CHIP	33K	5%	1/10W
R351	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R352	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R356	1-216-009-00	METAL CHIP	22	5%	1/10W
R361	1-216-073-00	METAL CHIP	10K	5%	1/10W
R362	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R363	1-216-073-00	METAL CHIP	10K	5%	1/10W
R364	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R365	1-216-009-00	METAL CHIP	22	5%	1/10W
R371	1-216-073-00	METAL CHIP	10K	5%	1/10W
R372	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R373	1-216-073-00	METAL CHIP	10K	5%	1/10W
R374	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R375	1-216-009-00	METAL CHIP	22	5%	1/10W
R381	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R403	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-073-00	METAL CHIP	10K	5%	1/10W
R406	1-216-073-00	METAL CHIP	10K	5%	1/10W
R453	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R454	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R472	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R473	1-249-421-11	CARBON	2.2K	5%	1/4W
R474	1-216-073-00	METAL CHIP	10K	5%	1/10W
R501	1-216-041-00	METAL CHIP	470	5%	1/10W
R507	1-216-025-00	METAL GLAZE	100	5%	1/10W
R508	1-216-025-00	METAL GLAZE	100	5%	1/10W
R531	1-216-073-00	METAL CHIP	10K	5%	1/10W
R533	1-216-041-00	METAL CHIP	470	5%	1/10W
R534	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R535	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R551	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R552	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R553	1-216-009-00	METAL CHIP	22	5%	1/10W
R554	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R555	1-216-073-00	METAL CHIP	10K	5%	1/10W
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W
R557	1-216-025-00	METAL GLAZE	100	5%	1/10W
R558	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R559	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R560	1-216-025-00	METAL GLAZE	100	5%	1/10W
R561	1-216-025-00	METAL GLAZE	100	5%	1/10W
R562	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R563	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R565	1-216-089-00	METAL GLAZE	47K	5%	1/10W

MAIN SUB

SEE ADDITIONAL INFORMATION

Ref.No.	Part No.	Description			Remark
R591	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R592	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W
R621	1-249-417-11	CARBON	1K	5%	1/4W
R622	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R623	1-216-073-00	METAL CHIP	10K	5%	1/10W
R624	1-249-385-11	CARBON	2.2	5%	1/6W
R625	1-249-385-11	CARBON	2.2	5%	1/6W
R626	1-249-411-11	CARBON	330	5%	1/4W
R627	1-249-411-11	CARBON	330	5%	1/4W
R651	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R652	1-249-385-11	CARBON	2.2	5%	1/6W
R653	1-216-073-00	METAL CHIP	10K	5%	1/10W
R654	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R661	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R701	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R704	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R705	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R706	1-216-113-00	METAL CHIP	470K	5%	1/10W
R707	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R708-710					
	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R711-714					
	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R715	1-216-085-00	METAL CHIP	33K	5%	1/10W
R717	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R719	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R721-724					
	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R725-727					
	1-216-081-00	METAL CHIP	22K	5%	1/10W
R729	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R730	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R731	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R732	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R733	1-216-037-00	METAL CHIP	330	5%	1/10W
R734	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R735	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R737	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R738	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R751	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R752	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R753	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R754-756					
	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R758-760					
	1-216-097-11	METAL GLAZE	100K	5%	1/10W
R761	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R762	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R763	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R771	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R772	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
		< NETWORK RESISTOR >			
RB701	1-239-514-11	RESISTOR, NETWORK (1608)			
RB702	1-239-517-11	RESISTOR, NETWORK (1608)			
RB703	1-239-517-11	RESISTOR, NETWORK (1608)			
		< VARIABLE RESISTOR >			
RV1	1-238-605-31	RES, ADJ, CARBON 470K			
RV121	1-238-597-11	RES, ADJ, CARBON 1K			
RV221	1-238-597-11	RES, ADJ, CARBON 1K			
		< SWITCH >			
S501	1-762-108-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S531	1-692-431-21	SWITCH, TACTILE (RESET)			
S701	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
		< VIBRATOR >			
X31	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)			
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)			
X702	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X751	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
X771	1-760-556-11	VIBRATOR, CRYSTAL (4.3MHz)			
**********					
*	1-660-465-11	SUB BOARD			
		*********			
		< CONNECTOR >			
CN1000	1-774-276-21	SOCKET, CONNECTOR 16P			
CN1001	1-774-944-11	SOCKET, CONNECTOR 14P			
		< DIODE >			
D1001	8-719-422-64	DIODE MA8062-M			
D1002	8-719-422-64	DIODE MA8062-M			
D1003	8-719-422-64	DIODE MA8062-M			
D1004	8-719-422-64	DIODE MA8062-M			
D1005	8-719-422-64	DIODE MA8062-M			
D1006	8-719-058-14	LED CL-220PG-C-TS (CASSETTE DOOR)			
		< TRANSISTOR >			
Q1001	8-729-900-53	TRANSISTOR DTC114EK			
Q1002	8-729-027-23	TRANSISTOR DTA114EKA-T146			
		< RESISTOR >			
R1001	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1002-1005					
	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

SEE ADDITIONAL INFORMATION

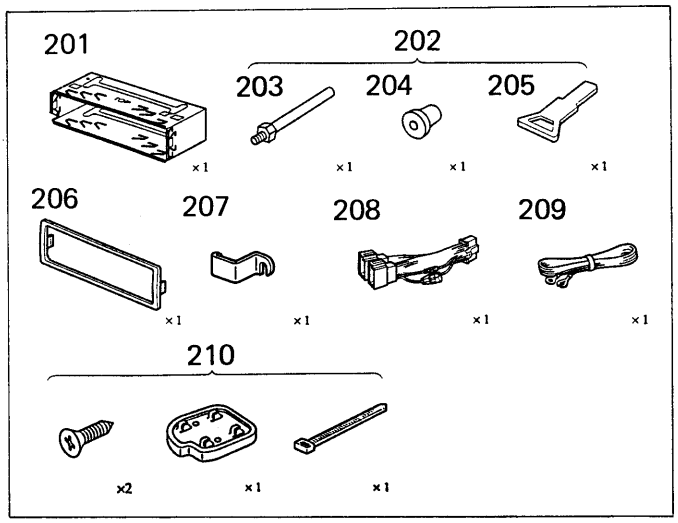
SUB

Ref. No.	Part No.	Description			Remark
R1006	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1007	1-216-029-00	METAL CHIP	150	5%	1/10W
R1008	1-216-029-00	METAL CHIP	150	5%	1/10W
R1011	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S1001	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (⏏)			
		**********			
		MISCELLANEOUS			
		**********			
19	1-776-527-11	CORD (WITH CONNECTOR) (ISO)			
F401	1-532-982-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A			
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)			
M901	A-3291-644-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)			
M902	A-3291-643-A	MOTOR ASSY, SUB (LOADING/TAPE OPERATION)			
S901	1-692-885-11	SWITCH, ROTARY SLIDE (TAPE OPERATION)			
		**********			
		ACCESSORIES & PACKING MATERIALS			
		**********			
	1-473-067-31	REMOTE COMMANDER (RM-X2S)			
	3-856-246-21	MANUAL, INSTRUCTION, INSTALL (RM-X2S) (ENGLISH, FRENCH, GERMAN, SPANISH, DUTCH, SWEDISH, ITALIAN, PORTUGUESE, CHINESE)			
	3-856-260-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN)			
	3-856-260-21	MANUAL, INSTRUCTION (SPANISH, DUTCH, SWEDISH, PORTUGUESE) (AEP, UK)			
	3-856-264-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH, GERMAN, ITALIAN)			
	3-856-264-21	MANUAL, INSTRUCTION, INSTALL (SPANISH, DUTCH, SWEDISH, PORTUGUESE) (AEP, UK)			
	X-3369-665-1	CASE ASSY			
		**********			

****
HARDWARE LIST
****

#1	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT
#2	7-621-255-40	SCREW +P 2X6
#3	7-621-770-67	SCREW +PTT 2.6X6 (S)
#4	7-621-773-87	SCREW +PTT 2.6X10 (S)
#5	7-621-773-95	SCREW +PTT 2.6X6 (S)
#6	7-624-104-04	STOP RING 2.0, TYPE -E
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3
#8	7-628-253-00	SCREW +PS 2X4

Ref. No.	Part No.	Description	Remark
		MOUNTING HARDWARE	
		**********	
201	3-916-161-41	FRAME, FITTING	
202	X-3370-077-1	SCREW ASSY (AE.KEY), FITTING	
203	3-386-828-01	SCREW, FITTING	
204	3-349-410-01	BUSHING	
205	3-388-078-01	KEY	
206	3-932-209-01	COLLAR	
207	3-936-243-01	STOPPER	
208	1-776-527-11	CORD (WITH CONNECTOR) (ISO)	
209	1-575-161-21	CORD (WITH TERMINAL)	
210	X-3369-817-1	BRACKET ASSY (RM-X2S)	



9-923-504-11

Sony Corporation
Mobile Electronics Company

English
96B047552-1
Printed in Germany
© 1996. 2
Published by Home A & V Products Div.
Quality Engineering Dept.

XR-C500RDS

SONY

AEP Model
UK Model

SERVICE MANUAL

SUPPLEMENT-1

File this supplement with the service manual.

Subject : Change the PC Boards

(ECN-CS602769)

9-923-504-81

Sony Corporation
Personal & Mobile Communication Company

97A047548-1
Printed in Germany ©1997. 1
Published by Quality Assurance Dept.

MAIN

1. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board.

- Abbreviation
  G : German model

Ref.No.	Part No.	Description			Remark
*	A-3309-250-A	MAIN BOARD, COMPLETE (G)			
*	A-3309-254-A	MAIN BOARD, COMPLETE (AEP,UK)			
		**********			
*	3-932-212-01	BRACKET (IC)			
		< BUZZER >			
BZ551	1-504-920-11	BUZZER			
		< CAPACITOR >			
C1	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C2	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-124-234-00	ELECT	22uF	20%	16V
C4	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C5	1-124-234-00	ELECT	22uF	20%	16V
C6	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C7	1-124-234-00	ELECT	22uF	20%	16V
C8	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C9	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C10	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C11	1-126-163-11	ELECT	4.7uF	20%	50V
C12	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C13	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C14	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C15	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C16	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C17	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C18	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C19	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C20	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C21	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C22	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C23	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C24	1-124-234-00	ELECT	22uF	20%	16V
C31	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C33	1-126-157-11	ELECT	10uF	20%	16V
C34	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C36	1-164-346-11	CERAMIC CHIP	1uF		16V
C37	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C38	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

Ref.No.	Part No.	Description			Remark
C39	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C40	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C41	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C42	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C43	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C51	1-126-157-11	ELECT	10uF	20%	16V
C52	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C53	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C54	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C55	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C56	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C57	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C58	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C91	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C93	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C94	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C96	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C97	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C98	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C100	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C101	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C102	1-126-163-11	ELECT	4.7uF	20%	50V
C103	1-126-163-11	ELECT	4.7uF	20%	50V
C104	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C105	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C111	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C121	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C122	1-130-469-00	MYLAR	680PF	5%	50V
C123	1-130-469-00	MYLAR	680PF	5%	50V
C124	1-136-153-00	FILM	0.01uF	5%	50V
C125	1-124-257-00	ELECT	2.2uF	20%	50V
C126	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C127	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C128	1-126-163-11	ELECT	4.7uF	20%	50V
C130	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C131	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C132	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C133	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C151	1-126-163-11	ELECT	4.7uF	20%	50V
C152	1-126-163-11	ELECT	4.7uF	20%	50V

MAIN

Ref.No.	Part No.	Description			Remark
C153	1-126-163-11	ELECT	4.7uF	20%	50V
C156	1-124-234-00	ELECT	22uF	20%	16V
C157	1-136-165-00	FILM	0.1uF	5%	50V
C158	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C159	1-126-157-11	ELECT	10uF	20%	16V
C160	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C161	1-126-157-11	ELECT	10uF	20%	16V
C162	1-136-169-00	FILM	0.22uF	5%	50V
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-126-163-11	ELECT	4.7uF	20%	50V
C175	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C176	1-136-165-00	FILM	0.1uF	5%	50V
C177	1-136-165-00	FILM	0.1uF	5%	50V
C181	1-126-163-11	ELECT	4.7uF	20%	50V
C182	1-126-163-11	ELECT	4.7uF	20%	50V
C185	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C186	1-136-165-00	FILM	0.1uF	5%	50V
C187	1-136-165-00	FILM	0.1uF	5%	50V
C191	1-163-137-00	CERAMIC CHIP	680PF	5%	50V (G)
C191	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V (AEP,UK)
C192	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C193	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C200	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C201	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C202	1-126-163-11	ELECT	4.7uF	20%	50V
C203	1-126-163-11	ELECT	4.7uF	20%	50V
C204	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C205	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C221	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C222	1-130-469-00	MYLAR	680PF	5%	50V
C223	1-130-469-00	MYLAR	680PF	5%	50V
C224	1-136-153-00	FILM	0.01uF	5%	50V
C225	1-124-257-00	ELECT	2.2uF	20%	50V
C226	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C227	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C228	1-126-163-11	ELECT	4.7uF	20%	50V
C230	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C231	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C232	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C233	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C251	1-126-163-11	ELECT	4.7uF	20%	50V
C252	1-126-163-11	ELECT	4.7uF	20%	50V
C253	1-126-163-11	ELECT	4.7uF	20%	50V
C256	1-124-234-00	ELECT	22uF	20%	16V
C257	1-136-165-00	FILM	0.1uF	5%	50V
C258	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C259	1-126-157-11	ELECT	10uF	20%	16V

Ref.No.	Part No.	Description			Remark
C260	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C261	1-126-157-11	ELECT	10uF	20%	16V
C262	1-136-169-00	FILM	0.22uF	5%	50V
C271	1-126-163-11	ELECT	4.7uF	20%	50V
C272	1-126-163-11	ELECT	4.7uF	20%	50V
C275	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C276	1-136-165-00	FILM	0.1uF	5%	50V
C277	1-136-165-00	FILM	0.1uF	5%	50V
C281	1-126-163-11	ELECT	4.7uF	20%	50V
C282	1-126-163-11	ELECT	4.7uF	20%	50V
C285	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C286	1-136-165-00	FILM	0.1uF	5%	50V
C287	1-136-165-00	FILM	0.1uF	5%	50V
C291	1-163-137-00	CERAMIC CHIP	680PF	5%	50V (G)
C291	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V (AEP,UK)
C292	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C293	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C302	1-126-157-11	ELECT	10uF	20%	16V
C319	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C320	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C321	1-124-234-00	ELECT	22uF	20%	16V
C322	1-124-584-00	ELECT	100uF	20%	10V
C323	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C324	1-124-465-00	ELECT	0.47uF	20%	50V
C325	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C326	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C327	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C328	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C329	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C330	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C331	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C332	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C351	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C352	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C353	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C354	1-124-234-00	ELECT	22uF	20%	16V
C355	1-124-584-00	ELECT	100uF	20%	10V
C360	1-126-157-11	ELECT	10uF	20%	16V
C361	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C363	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C370	1-126-157-11	ELECT	10uF	20%	16V
C371	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C373	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C381	1-126-160-11	ELECT	1uF	20%	50V
C382	1-124-234-00	ELECT	22uF	20%	16V
C402	1-126-157-11	ELECT	10uF	20%	16V
C403	1-164-232-11	CERAMIC CHIP	0.01uF		50V

MAIN

Ref.No.	Part No.	Description			Remark
C404	1-126-157-11	ELECT	10uF	20%	16V
C405	1-126-157-11	ELECT	10uF	20%	16V
C451	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C452	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C453	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C454	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C455	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C456	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C457	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C471	1-111-233-11	ELECT	5600uF	20%	16V
C472	1-136-173-00	FILM	0.47uF	5%	50V
C473	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C474	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C475	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C476	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C501	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C507	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C508	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C531	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C533	1-125-705-11	DOUBLE LAYERS	0.22F		5.5V
C534	1-126-924-11	ELECT	330uF	20%	6.3V
C535	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C536	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C551	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C552	1-124-257-00	ELECT	2.2uF	20%	50V
C553	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C554	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C555	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C557	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C558	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C559	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C601	1-126-157-11	ELECT	10uF	20%	16V
C602	1-124-234-00	ELECT	22uF	20%	16V
C603	1-126-157-11	ELECT	10uF	20%	16V
C605	1-124-589-11	ELECT	47uF	20%	16V
C606	1-124-589-11	ELECT	47uF	20%	16V
C607	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C617	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C618	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C621	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C622	1-124-257-00	ELECT	2.2uF	20%	50V
C651	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C652	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C653	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C654	1-126-157-11	ELECT	10uF	20%	16V
C655	1-124-234-00	ELECT	22uF	20%	16V
C656	1-126-934-11	ELECT	220uF	20%	16V
C661	1-124-234-00	ELECT	22uF	20%	16V
C662	1-164-232-11	CERAMIC CHIP	0.01uF		50V

Ref.No.	Part No.	Description			Remark
C663	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C664	1-124-584-00	ELECT	100uF	20%	10V
C691	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
C692	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
C703	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C704	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C705	1-124-234-00	ELECT	22uF	20%	16V
C706	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C707	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C751	1-124-257-00	ELECT	2.2uF	20%	50V
C754	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C755	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C757	1-126-160-11	ELECT	1uF	20%	50V
C771	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C772	1-126-157-11	ELECT	10uF	20%	16V
C773	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C774	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C775	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C776	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C777	1-124-257-00	ELECT	2.2uF	20%	50V
C778	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C791	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C792	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C799	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C901	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C981	1-107-682-11	CERAMIC CHIP	1uF	10%	16V

< CONNECTOR >

CNJ551	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)	
CNP321	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P	
* CNP331	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P	
CNP471	1-774-701-11	PIN, CONNECTOR 16P	
CNP851	1-770-409-11	CONNECTOR, BOARD TO BOARD 16P	

< DISCHARGE GAP >

CP1	1-519-504-11	GAP, DISCHARGE

< DIODE >

D1	8-719-991-75	DIODE RB425D
D31	8-719-109-88	DIODE RD5.6ES-B1
D51	8-719-110-14	DIODE RD9.1ES-B3
D321	8-719-404-46	DIODE MA110
D371	8-719-422-12	DIODE MA8039
D372	8-719-404-46	DIODE MA110
D401	8-719-404-46	DIODE MA110
D402	8-719-404-46	DIODE MA110
D403	8-719-974-59	DIODE 1SR139-100
D404	8-719-974-59	DIODE 1SR139-100

MAIN

Ref.No.	Part No.	Description	Remark
D405	8-719-404-46	DIODE MA110	
D471	8-719-049-38	DIODE 1N5404TU	
D472	8-719-422-64	DIODE MA8062-M	
D473	8-719-017-98	DIODE MA8200-TX	
D501	8-719-422-64	DIODE MA8062-M	
D502	8-719-422-64	DIODE MA8062-M	
D531	8-719-911-19	DIODE 1SS119-25	
D532	8-719-041-79	DIODE MA721WA-TX	
D533	8-719-109-93	DIODE RD6.2ESB2	
D534	8-719-979-34	DIODE DAP236K-T146	
D551	8-719-022-90	DIODE MA8160M-TX	
D552	8-719-420-14	DIODE MA8082-M	
D553	8-719-109-93	DIODE RD6.2ESB2	
D554	8-719-109-97	DIODE RD6.8ES-B2	
D555	8-719-109-93	DIODE RD6.2ESB2	
D556	8-719-109-93	DIODE RD6.2ESB2	
D557	8-719-109-93	DIODE RD6.2ESB2	
D558	8-719-109-93	DIODE RD6.2ESB2	
D559	8-719-911-19	DIODE 1SS119-25	
D565	8-719-404-46	DIODE MA110	
D575	8-719-404-46	DIODE MA110	
D591	8-719-057-80	DIODE MA8160-M-TX	
D592	8-719-057-80	DIODE MA8160-M-TX	
D593	8-719-422-62	DIODE MA8062L	
D594	8-719-422-62	DIODE MA8062L	
D595	8-719-422-62	DIODE MA8062L	
D596	8-719-422-62	DIODE MA8062L	
D597	8-719-422-62	DIODE MA8062L	
D598	8-719-422-62	DIODE MA8062L	
D621	8-719-923-74	DIODE MTZJ-T-77-11A	
D651	8-719-110-14	DIODE RD9.1ES-B3	
D652	8-719-911-19	DIODE 1SS119-25	
D661	8-719-110-17	DIODE RD10ESB2	
D701	8-719-979-34	DIODE DAP236K-T146	
D702	8-719-404-46	DIODE MA110	
D751	8-719-404-46	DIODE MA110	
		< FUSE >	
F401	1-532-982-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
		< IC >	
IC11	8-759-367-11	IC HA12181FP-EL	
IC31	8-759-823-81	IC LC7216M	
IC51	8-759-242-66	IC TC4W66F	
IC301	8-759-075-69	IC TC4066BFS-EL	
IC302	8-759-331-71	IC NJM4558E(TE2)	
IC321	8-752-075-58	IC CXA2510Q-T4	
IC351	8-752-075-48	IC CXA1946AQ-T6	

Ref.No.	Part No.	Description	Remark
IC361	8-759-331-71	IC NJM4558E(TE2)	
IC371	8-759-331-71	IC NJM4558E(TE2)	
IC401	8-759-369-41	IC HA13155	
IC531	8-759-363-81	IC XC61AN4002PR	
IC551	8-759-096-16	IC MM1175XFF	
IC601	8-759-347-49	IC BA3918-V2	
IC651	8-759-823-87	IC LB1638M	
IC701	8-759-421-95	IC uPD78056GC-157-3B9	
IC751	8-759-379-99	IC MN1883220S4A1	
IC771	8-759-163-63	IC TDA7330BD-013TR	
		< JACK >	
J1	1-764-808-21	JACK (ANTENNA) (AEP,UK)	
J1	1-770-279-21	JACK (ANTENNA) (G)	
J451	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, LINE OUT REAR, LINE OUT FRONT)	
J551	1-566-822-41	JACK (REMOTE IN)	
		< JUMPER RESISTOR >	
JC101	1-216-841-11	METAL CHIP 47K 5% 1/16W	
JC201	1-216-841-11	METAL CHIP 47K 5% 1/16W	
JC391	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC771	1-216-295-00	CONDUCTOR, CHIP (2012)	
JC981	1-216-296-00	CONDUCTOR, CHIP (3216)	
		< COIL >	
L31	1-410-501-11	INDUCTOR 2.2uH	
L32	1-410-509-11	INDUCTOR 10uH	
L471	1-411-669-12	COIL, CHOKE 400uH	
L701	1-410-509-11	INDUCTOR 10uH	
L751	1-410-509-11	INDUCTOR 10uH	
L771	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q32	8-729-106-68	TRANSISTOR 2SD1615A-GP	
Q51	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q52	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q53	8-729-900-53	TRANSISTOR DTC114EK	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q171	8-729-920-21	TRANSISTOR DTC314TKH04	
Q181	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q271	8-729-920-21	TRANSISTOR DTC314TKH04	
Q281	8-729-920-21	TRANSISTOR DTC314TKH04	
Q301	8-729-920-21	TRANSISTOR DTC314TKH04	
Q331	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q332	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q333	8-729-027-60	TRANSISTOR DTC144TKA-T146	

MAIN

Ref.No.	Part No.	Description	Remark
Q371	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q372	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q373	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q410	8-729-027-24	TRANSISTOR DTA114TKA-T146	
Q531	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q532	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q551	8-729-900-53	TRANSISTOR DTC114EK	
Q552	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q553	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q554	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q555	8-729-900-53	TRANSISTOR DTC114EK	
Q565	8-729-027-38	TRANSISTOR DTA144EKA-T146	
Q621	8-729-900-53	TRANSISTOR DTC114EK	
Q622	8-729-900-53	TRANSISTOR DTC114EK	
Q623	8-729-926-99	TRANSISTOR 2SA1585STPR	
Q624	8-729-030-18	TRANSISTOR 2SD2525	
Q625	8-729-030-18	TRANSISTOR 2SD2525	
Q626	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q651	8-729-030-18	TRANSISTOR 2SD2525	
Q652	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q653	8-729-106-60	TRANSISTOR 2SB1115A	
Q661	8-729-900-53	TRANSISTOR DTC114EK	
Q662	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q663	8-729-040-22	TRANSISTOR 2SD1862TV2R	
Q701	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q702	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q703	8-729-027-59	TRANSISTOR DTC144EKA-T146	

< RESISTOR >

R1	1-216-037-00	METAL CHIP	330	5%	1/10W
R2	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R6	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R7	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R8	1-216-041-00	METAL CHIP	470	5%	1/10W
R9	1-216-073-00	METAL CHIP	10K	5%	1/10W
R10	1-216-081-00	METAL CHIP	22K	5%	1/10W
R11	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R12	1-216-075-00	METAL CHIP	12K	5%	1/10W
R13	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R14	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R15	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R16	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R17	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R18	1-216-009-00	METAL CHIP	22	5%	1/10W
R19	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R31	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R32	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R33	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R34	1-216-073-00	METAL CHIP	10K	5%	1/10W
R35	1-216-073-00	METAL CHIP	10K	5%	1/10W
R37	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R51	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R52	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R53	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R54	1-216-075-00	METAL CHIP	12K	5%	1/10W
R55	1-216-073-00	METAL CHIP	10K	5%	1/10W
R56	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R57	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R101	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R102	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R103	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R104	1-208-462-11	METAL GLAZE	10K	2%	1/10W (AEP,UK)
R104	1-216-073-00	METAL CHIP	10K	5%	1/10W (G)
R105	1-208-462-11	METAL GLAZE	10K	2%	1/10W (AEP,UK)
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W (G)
R106	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R107	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R108	1-208-810-11	METAL GLAZE	15K	2%	1/10W (AEP,UK)
R108	1-216-699-11	METAL CHIP	100K	0.5%	1/10W (G)
R121	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R122	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R123	1-216-109-00	METAL CHIP	330K	5%	1/10W
R124	1-216-077-00	METAL CHIP	15K	5%	1/10W
R125	1-216-079-00	METAL CHIP	18K	5%	1/10W
R126	1-216-079-00	METAL CHIP	18K	5%	1/10W
R127	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R128	1-216-073-00	METAL CHIP	10K	5%	1/10W
R151	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R152	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R154	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R171	1-216-033-00	METAL CHIP	220	5%	1/10W
R172	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R173	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R174	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R176	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R177	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R181	1-216-033-00	METAL CHIP	220	5%	1/10W
R182	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R183	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R184	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R186	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R187	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R201	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R202	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W

Ref.No.	Part No.	Description			Remark
R203	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R204	1-208-462-11	METAL GLAZE	10K	2%	1/10W (AEP,UK)
R204	1-216-073-00	METAL CHIP	10K	5%	1/10W (G)
R205	1-208-462-11	METAL GLAZE	10K	2%	1/10W (AEP,UK)
R205	1-216-073-00	METAL CHIP	10K	5%	1/10W (G)
R206	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R207	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R208	1-208-810-11	METAL GLAZE	15K	2%	1/10W (AEP,UK)
R208	1-216-699-11	METAL CHIP	100K	0.5%	1/10W (G)
R221	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R222	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R223	1-216-109-00	METAL CHIP	330K	5%	1/10W
R224	1-216-077-00	METAL CHIP	15K	5%	1/10W
R225	1-216-079-00	METAL CHIP	18K	5%	1/10W
R227	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R251	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R252	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R254	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R271	1-216-033-00	METAL CHIP	220	5%	1/10W
R272	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R273	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R274	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R276	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R277	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R281	1-216-033-00	METAL CHIP	220	5%	1/10W
R282	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R283	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R284	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R286	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R287	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R301	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R302	1-216-073-00	METAL CHIP	10K	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R321	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R322	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R323	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R324	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R325	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R326	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R327	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R328	1-216-025-00	METAL GLAZE	100	5%	1/10W
R331	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R332	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R333	1-216-085-00	METAL CHIP	33K	5%	1/10W
R351	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R352	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R356	1-216-009-00	METAL CHIP	22	5%	1/10W
R361	1-216-073-00	METAL CHIP	10K	5%	1/10W
R362	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R363	1-216-073-00	METAL CHIP	10K	5%	1/10W
R364	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R365	1-216-009-00	METAL CHIP	22	5%	1/10W
R371	1-216-073-00	METAL CHIP	10K	5%	1/10W
R372	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R373	1-216-073-00	METAL CHIP	10K	5%	1/10W
R374	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R375	1-216-009-00	METAL CHIP	22	5%	1/10W
R381	1-216-295-00	CONDUCTOR, CHIP			(2012)
R391	1-216-073-00	METAL CHIP	10K	5%	1/10W
R403	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-073-00	METAL CHIP	10K	5%	1/10W
R406	1-216-073-00	METAL CHIP	10K	5%	1/10W
R453	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R454	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R472	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R473	1-249-421-11	CARBON	2.2K	5%	1/4W
R474	1-216-073-00	METAL CHIP	10K	5%	1/10W
R501	1-216-041-00	METAL CHIP	470	5%	1/10W
R507	1-216-025-00	METAL GLAZE	100	5%	1/10W
R508	1-216-025-00	METAL GLAZE	100	5%	1/10W
R531	1-216-073-00	METAL CHIP	10K	5%	1/10W
R533	1-216-041-00	METAL CHIP	470	5%	1/10W
R534	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R535	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R551	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R552	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R553	1-216-009-00	METAL CHIP	22	5%	1/10W
R554	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R555	1-216-073-00	METAL CHIP	10K	5%	1/10W
R556	1-216-025-00	METAL GLAZE	100	5%	1/10W
R557	1-216-025-00	METAL GLAZE	100	5%	1/10W
R558	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R559	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R560	1-216-025-00	METAL GLAZE	100	5%	1/10W
R561	1-216-025-00	METAL GLAZE	100	5%	1/10W
R562	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R563	1-208-806-11	METAL GLAZE	10K	0.50%	1/10W
R565	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R591	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R592	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W
R621	1-249-417-11	CARBON	1K	5%	1/4W
R622	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R623	1-216-073-00	METAL CHIP	10K	5%	1/10W

MAIN **SUB**

Ref.No.	Part No.	Description			Remark
R624	1-249-385-11	CARBON	2.2	5%	1/6W
R625	1-249-385-11	CARBON	2.2	5%	1/6W
R626	1-249-411-11	CARBON	330	5%	1/4W
R627	1-249-411-11	CARBON	330	5%	1/4W
R651	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R652	1-249-385-11	CARBON	2.2	5%	1/6W
R653	1-216-073-00	METAL CHIP	10K	5%	1/10W
R654	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R661	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R701	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R704	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R705	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R706	1-218-179-11	METAL GLAZE	10M	5%	1/10W
R707	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R708	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R709	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R710	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R711	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R712	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R713	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R714	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R715	1-216-085-00	METAL CHIP	33K	5%	1/10W
R717	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R719	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R721	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R723	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R724	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R725	1-216-081-00	METAL CHIP	22K	5%	1/10W
R726	1-216-081-00	METAL CHIP	22K	5%	1/10W
R727	1-216-081-00	METAL CHIP	22K	5%	1/10W
R729	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R730	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R731	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R732	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R733	1-216-037-00	METAL CHIP	330	5%	1/10W
R734	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R735	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R737	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R738	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R751	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R752	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R753	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R754	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R755	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R756	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R758	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R759	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R760	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R761	1-216-049-11	METAL GLAZE	1K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R762	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R763	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R771	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R772	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R792	1-216-081-00	METAL CHIP	22K	5%	1/10W
		< NETWORK RESISTOR >			
RB701	1-233-413-11	RES, CHIP NETWORK 2.2K		(3216)	
RB702	1-233-810-21	RES, NETWORK 100K		(3216)	
RB703	1-233-810-21	RES, NETWORK 100K		(3216)	
		< VARIABLE RESISTOR >			
RV1	1-238-605-31	RES, ADJ, CARBON 470K			
RV121	1-238-853-11	RES, ADJ, CERMET 1K			
RV221	1-238-853-11	RES, ADJ, CERMET 1K			
		< SWITCH >			
S501	1-762-108-11	SWITCH, PUSH (1 KEY) (NOSE DET)			
S531	1-692-431-21	SWITCH, TACTILE (RESET)			
S701	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
		< TUNER >			
TU1	A-3282-012-A	TUNER UNIT (TUX-006 (E))			
		< VIBRATOR >			
X31	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)			
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)			
X702	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X751	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
X771	1-760-556-31	VIBRATOR, CRYSTAL (4.3MHz)			

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* 1-660-465-11 SUB BOARD

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< CONNECTOR >

CN1000	1-774-276-21	SOCKET, CONNECTOR 16P
CN1001	1-774-944-11	SOCKET, CONNECTOR 14P

< DIODE >

D1001	8-719-422-64	DIODE MA8062-M
D1002	8-719-422-64	DIODE MA8062-M
D1003	8-719-422-64	DIODE MA8062-M
D1004	8-719-422-64	DIODE MA8062-M
D1005	8-719-422-64	DIODE MA8062-M
D1006	8-719-058-14	LED CL-220PG-C-TS (CASSETTE DOOR)
D1008	8-719-422-64	DIODE MA8062-M
D1009	8-719-422-64	DIODE MA8062-M

SUB

Ref.No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1001	8-729-900-53	TRANSISTOR DTC114EK			
Q1002	8-729-027-23	TRANSISTOR DTA114EKA-T146			
		< RESISTOR >			
R1001	1-216-025-00	METAL GLAZE	100	5%	1/10W
R1002	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R1003	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R1004	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R1005	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R1006	1-216-073-00	METAL CHIP	10K	5%	1/10W
R1007	1-216-029-00	METAL CHIP	150	5%	1/10W
R1008	1-216-029-00	METAL CHIP	150	5%	1/10W
R1011	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S1001	1-762-619-11	SWITCH, KEY BOARD (WITH LED) (⏏)			

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2. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	F-12	IC301	F-9
D31	I-15	IC302	E-9
D51	I-16	IC321	G-9
D321	F-15	IC351	F-7
D371	F-17	IC361	D-7
D372	F-17	IC371	D-8
D401	F-5	IC401	B-17
D402	B-7	IC531	H-2
D403	D-18	IC551	E-3
D404	D-19	IC601	E-19
D405	E-6	IC651	F-2
D471	D-19	IC701	G-4
D472	C-4	IC751	H-6
D473	C-4	IC771	H-7
D501	J-4		
D502	J-4	Q3	H-13
D531	J-21	Q32	I-15
D532	G-21	Q51	I-7
D533	I-21	Q52	I-9
D534	I-4	Q101	E-9
D551	F-3	Q171	B-8
D552	F-5	Q181	B-8
D553	E-19	Q201	E-13
D554	E-19	Q271	B-8
D555	C-22	Q281	B-8
D556	C-21	Q301	D-14
D557	C-22	Q331	F-8
D558	C-21	Q332	H-16
D559	D-21	Q333	F-14
D565	F-3	Q371	F-18
D575	F-3	Q372	F-18
D591	J-15	Q373	F-18
D592	J-15	Q410	H-14
D593	J-9	Q531	I-3
D594	J-14	Q532	I-4
D595	I-13	Q551	F-19
D596	J-8	Q552	F-19
D597	I-13	Q553	E-3
D598	J-13	Q554	E-20
D621	H-21	Q555	J-20
D651	G-21	Q565	E-20
D652	E-21	Q621	I-20
D661	D-17	Q622	I-21
D701	G-18	Q623	I-20
D702	C-5	Q624	I-21
D751	H-6	Q625	H-21
D1001	J-26	Q626	I-21
D1002	J-25	Q651	G-21
D1003	J-25	Q652	G-2
D1004	J-25	Q653	F-21
D1005	J-25	Q661	F-5
D1006	H-24	Q662	E-17
D1008	I-26	Q663	E-17
D1009	I-26	Q701	G-3
		Q702	G-3
IC11	D-9	Q703	G-20
IC31	I-8	Q1001	J-25
IC51	H-9	Q1002	I-25

Note :
- ○— : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen. (The other layer's patterns are not indicated.)

[MAIN BOARD] (SIDE A)

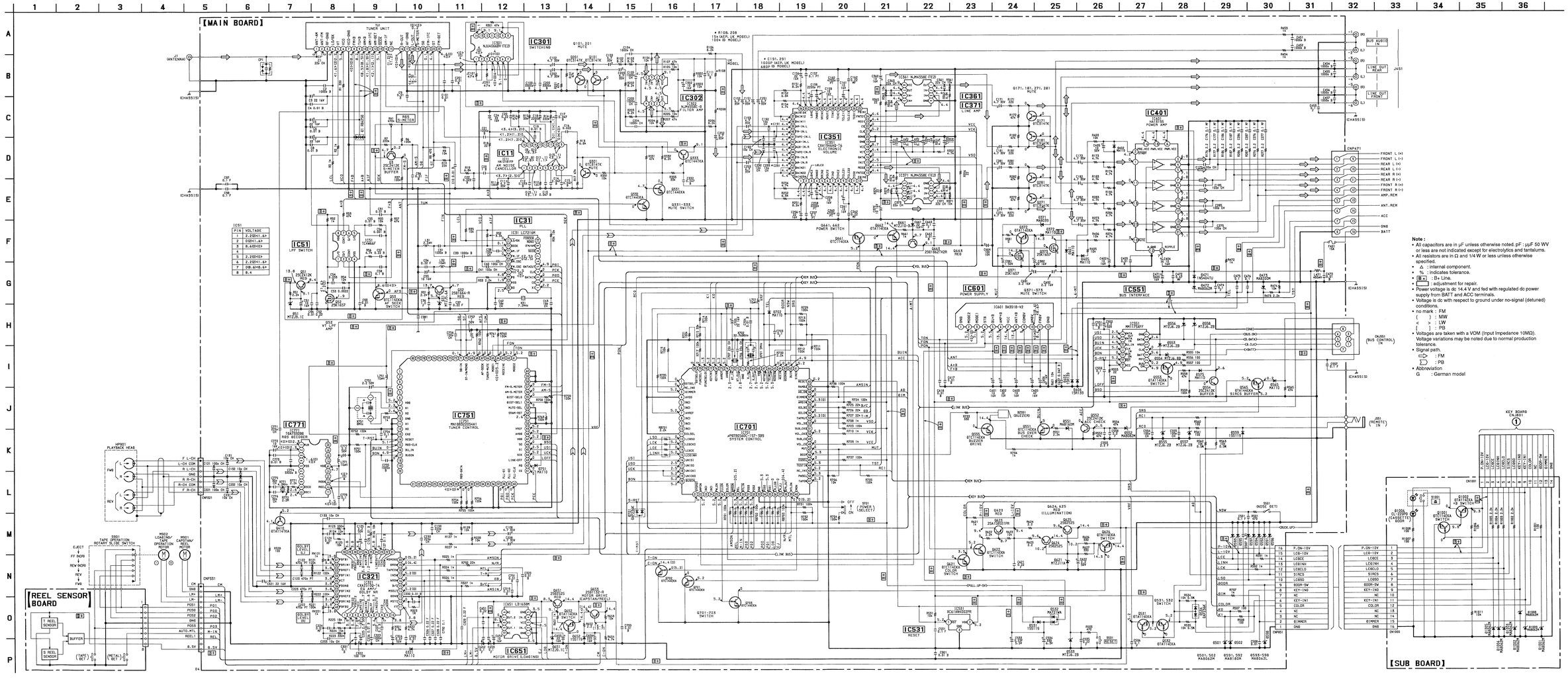
[MAIN BOARD] (SIDE B)

[REEL SENSOR BOARD]

[SUB BOARD] (SIDE A)

[SUB BOARD] (SIDE B)

3. SCHEMATIC DIAGRAM


【MAIN BOARD】
【SUB BOARD】
REEL SENSOR BOARD
IC301 SWITCHING
IC302 SUPERHET-IC FILTER AMP
IC351 CXA1706AS-T6 ELECTRONIC VOLUME
IC361 IC371 LINE AMP
IC401 HA13150 POWER AMP
IC551 BUS INTERFACE
IC601 POWER SUPPLY
IC701 MICROCOMPUTER SYSTEM CONTROL
IC751 TUNER CONTROL
IC771 REG DECODER
IC321 MOTOR DRIVE
IC651 MOTOR DRIVE (LOADING)
IC531 RESET
IC1 IC31 PLL
IC51 LPF SWITCH
IC101 201 MUTE
Q171, 181, 271, 281 MUTE
Q441, 442 POWER SWITCH
Q471-474 MUTE SWITCH
Q701-723 SWITCH
Q501, 502 Q591, 592 Q593-598
FRONT L (+)
FRONT L (-)
REAR L (+)
REAR L (-)
REAR R (+)
REAR R (-)
FRONT R (+)
FRONT R (-)
AMP.REM
ANT.REM
ACC
GND
BATT
BUS AUDIO IN
LINE OUT REAR
LINE OUT FRONT
KEY BOARD CN3851
Note :
• All capacitors are in μF unless otherwise noted. pF : μμF 50 WV or less are not indicated except for electrolytics and tantalums.
• All resistors are in Ω and 1/4 W or less unless otherwise specified.
• ▲ : internal component.
• % : indicates tolerance.
• B+ : B+ Line.
• ▭ : adjustment for repair.
• Power voltage is dc 14.4 V and fed with regulated dc power supply from BATT and ACC terminals.
• Voltage is dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
( ) : MW
< > : LW
[ ] : PB
• Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerance.
• Signal path.
⇨ : FM
⇨ : PB
• Abbreviation
G : German model